AUTHOR INDEX

(D) Denotes Demonstration, (T) Title only, (C) Communication, (PC) Poster Communication

ACKLIN S.E. & CHIQUET M. An extracellular matrix factor mediates rapid outgrowth of identified leach neurones in culture. (C) 55*P*

ADGEY A. A. Jennifer, ALLEN J.D., ANDERSON J., CARLISLE E.J.F. & KERNOHAN G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. (C) 24*P*

AHSAN M.A., BLEAKMAN D. & NAFTALIN R.J. Prevention of carbachol-induced fluid secretion in isolated rabbit ileum by dopamine. (C) 78*P*

AKBARALI H.I., BIEGER D. & TRIGGLE C.R. Tetrodotoxin-sensitive and -insensitive relaxations in the rat oesophageal tunica muscularis mucosae. 49

ALLEN J.D. *see* ADGEY A. A. Jennifer, ALLEN J.D., ANDERSON J., CARLISLE E.J.F. & KERNOHAN G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. (C) 24*P*

AMOBI N.I.B. & SMITH I.C.H. Effect of calmodulin antagonist, W-7 on neuromuscular responses of isolated rat vas deferens. (PC) 103*P*

ANDERSON J. *see* ADGEY A. A. Jennifer, ALLEN J.D., ANDERSON J., CARLISLE E.J.F. & KERNOHAN G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. (C) 24*P*

ANDERSON J.V., BHOOLA K.D., BLOOM S.R. & FARRELL Stephanie Mackenzie and N. D. Millar. The influence of physiological changes in circulating atrial natriuretic peptide (ANP) on the excretion of urinary tissue kallikrein in man. (C) 25*P*

ANDERSON L.C. Adrenergic, cholinergic and peptidergic stimulation of parotid secretion in streptozotocin-diabetic rats. (C) 34*P*

ARKJLE S., MICHALEK R. & TEMPLETON D. Potentiation of substance P evoked amylase secretion by phorbol esters in the rat parotid gland *in vitro*. (C) 35*P*

ARLOCK Per & WOHLFART Bjorn Effect of voltage clamp duration on force production of successive twitches in ferret and guinea-pig papillary muscle. (C) 95*P*

ARMSTRONG D.J., KAY I.S. & RUSSELL N.J.W. MDL 72222 antagonizes the reflex tachypnoeic response to miliary pulmonary embolism in anaesthetized rabbits. (C) 13*P*

ASHCROFT Frances M., ASHCROFT S.J.H., KFAKEI M. & KELLY R. ADP modulates the ATP-sensitivity of the K-channel closed by glucose in isolated rat pancreatic B-cells. (C) 68*P*

ASHCROFT S.J.H. *see* ASHCROFT Frances M., ASHCROFT S.J.H., KFAKEI M. & KELLY R. ADP modulates the ATP-sensitivity of the K-channel closed by glucose in isolated rat pancreatic B-cells. (C) 68*P*

ASHFORD M.L.J., HALES C.N. & STURGESS N.C. Adenosine triphosphate inhibits the activity of the calcium-activated non-selective cation channel in a rat insulinoma cell line. (PC) 116*P*

ASHLEY R.H., MONTGOMERY R.A.P. & WILLIAMS A.J. Incorporation of several calcium channels from sheep and rabbit heart into planar lipid bilayers. (PC) 115*P*

ASKING B., GARRETT J.R. & PROCTOR G.B. Non-parallel features in parasympathetic and sympathetic parotid saliva from rats. (C) 33*P*

AUGUSTINE George J. & CHARLTON Milton P. Calcium dependence of presynaptic calcium current and post-synaptic response at the squid giant synapse. 619

BAKER P.F. & BROWN A. Transfer of newly synthetized protein into the giant axon of the squid *Loligo forbesi*. (C) 74*P*

BALDWIN B.A., KENDRICK K.M. & KEVERENE E.B. Intracerebroventricular oxytocin stimulates maternal behaviour in the sheep. (C) 80*P*

BALMENT R.J., BRIMBLE M.J., FORSLING M.L. & MUSABAYANE C.T. The influence of neurohypophysial hormones on renal function in the acutely hypophysectomized rat. 439

BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

BAMFORD O.S., DAWES G.S., DENNY R. & WARD R.A. Effects of the α_2-adrenergic agonist clonidine and its antagonist idazoxan on the fetal lamb. 29

BAND D.M. & LINTON R.A.F. The effect of potassium on carotid body chemoreceptor discharge in the anaesthetized cat. 39

BARROW S.E., COCKROFT J.R., HICKLING N.E. & RITTER J.M. Bradykinin-induced 13,14-dihydro-15-oxo-prostaglandin $F_{2\alpha}$ production in man. (PC) 106*P*

BEALE Karen J., DUFFET J.M., FORSLING Mary L. & PEYSNER K. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. (C) 38*P*

BEAZLEY L.D. & DUNLOP S.A. A retino-retinal projection cannot account for high optic axon numbers during development in the marsupial *Setonix brachyurus*, quokka. (C) 61*P*

BEKKERS J.M., FORSTER I.C., GREEF N.G. & KEYNES R.D. Improvements in the recording of gating currents in the squid giant axon. (D) 9*P*

BENHAM C.D. & BOLTON T.B. Spontaneous transient outward currents in single visceral and vascular smooth muscle cells of the rabbit. 385

BENNETT Max, Ho Stephen & LAVIDIS Nickolas Competition between segmental nerves at end-plates in rat gastrocnemius muscle during loss of polyneuronal innervation. 351

BENNETT T., COMPTON A.M. & GARDINER S.M. Changes in regional vascular resistance following administration of α-adrenoceptor antagonists to conscious, unrestrained, Long Evans rats. (C) 18*P*

BENNETT Terence & GARDINER Sheila M. Fluid and electrolyte handling in Long Evans and Brattelboro rat following injection of polyethylene glycol. 407

BENNS L.M. & HANSON M.A. Properties of neurones in the rat trigeminal nucleus caudalis responding to stimulation of the ipsilateral parietal meninges. (PC) 108*P*

BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

BERKENBOSCH A., DEGOEDE J., OLIEVIER C.N. & SCHUITMAKER J.J. A pseudo-rebreathing technique for assessing the ventilatory response to carbon dioxide in cats. 483

BHOOLA K.D. *see* ANDERSON J.V., BHOOLA K.D., BLOOM S.R. & FARRELL Stephanie Mackenzie and N. D. Millar. The influence of physiological changes in circulating atrial natriuretic peptide (ANP) on the excretion of urinary tissue kallikrein in man. (C) 25*P*

BIEGER D. *see* AKBARALI H.I., BIEGER D. & TRIGGLE C.R. Tetrodotoxin-sensitive and -insensitive relaxations in the rat oesophageal tunica muscularis mucosae. 49

BLEAKMAN D. *see* AHSAN M.A., BLEAKMAN D. & NAFTALIN R.J. Prevention of carbachol-induced fluid secretion in isolated rabbit ileum by dopamine. (C) 78*P*

BLOMSTRAND E., EKBLOM B. & NEWSHOLME E.A. Maximum activities of key glycolytic and oxidative enzymes in human muscle from differently trained individuals. 111

BLOOM S.R. *see* ANDERSON J.V., BHOOLA K.D., BLOOM S.R. & FARRELL Stephanie Mackenzie and N. D. Millar. The influence of physiological changes in circulating atrial natriuretic peptide (ANP) on the excretion of urinary tissue kallikrein in man. (C) 25*P*

BODEN P.R. & HILL R.G. Evidence for the cholecystokinin (CCK) fragments CCK-8S, CCK-4 and pentagastrin sharing a common site of action on rat hipocampal CA1 neurones *in vitro*. (C) 48*P*

BOLTON T.B. *see* BENHAM C.D. & BOLTON T.B. Spontaneous transient outward currents in single visceral and vascular smooth muscle cells of the rabbit. 385

BORN G.V.R., CUSACK N.J., DARWIN Carola & MCCLURE Myra Prolongation of bleeding time in rats by ADP receptor antagonists. (C) 22*P*

BORNSTEIN J.C., COSTA M. & FURNESS J.B. Synaptic inputs to immunohistochemically identified neurones in the submucous plexus of the guinea-pig small intestine. 465

BOWSER-RILEY F., HILL W.A.G. & SMITH E.B. The use of strychnine as a model for the design of drugs to combat the action of pressure on mice. (PC) 101*P*

BOYETT Mark R., HART George & LEVI Allan J. Dissociation between force and intracellular sodium activity with strophanthidin in isolated sheep Purkinje fibres. 311

BRIMBLE M.J. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L. & MUSABAYANE C.T. The influence of neurohypophysial hormones on renal function in the acutely hypophysectomized rat. 439

BRIMBLE M.J. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

BROWN A. *see* BAKER P.F. & BROWN A. Transfer of newly synthetized protein into the giant axon of the squid *Loligo forbesi*. (C) 74*P*

BROWN A.G., NOBLE R. & RIDDELL J.S. Relations between spinocervical and post-synaptic dorsal column neurones in the cat. 333

BROWN Bruce P. & HEISTAD Donald D. Capacitance of the rabbit portal vein and inferior vena cava. 417

BRUNKEN W.J. & DAW N.W. Effect of indoleamine agonists and antagonists on the response of ganglion cells in the rabbit retina. (C) 59*P*

BUCHAN W., KAY R.N.B., SASAKI Y. & SCOTT D. Effects of abrupt changes in food and potassium intake on the rumen sodium reservoir in sheep. (C) 84*P*

BUCX J.J.J., DE TOMBE P., SCHOUTEN V.J.A. & TER KEURS H.E.D.J. Effect of Sr^{2+} on force and sarcomere length in heart muscle of rat. (C) 96*P*

BUNCE K.T. & SPRAGGS C.F. The effects of omeprazole, an H^+/K^+-ATPase inhibitor, on ion transport in guinea-pig isolated gastric mucosa. (C) 77*P*

BUYS E.J., LEMON R.N., MANTEL G.W.H. & MUIR R.B. Selective facilitation of different hand muscles by single corticospinal neurones in the conscious monkey. 529

CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

CANNELL M.B., EISNER D.A., LEDERER W.J. & VALDEOLMILLOS M. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. 193

CARLISLE E.J.F. *see* ADGEY A. A. Jennifer, ALLEN J.D., ANDERSON J., CARLISLE E.J.F. & KERNOHAN G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. (C) 24*P*

CARMICHAEL D.J.S., PEART W.S. & UNWIN E.J. *In vitro* study of the relationship between whole blood Ca^{2+} ion activity (a_{Ca}) and total plasma calcium concentration in rabbit and man. (C) 21*P*

CHAMPAGNAT J., DENAVIT-SAUBIÉ Monique, GRANT Kirsty & SHEN K.F. Organization of synaptic transmission in the mammalian solitary complex, studied *in vitro*. 551

CHAPMAN J.C., HREASH F. & LAYCOCK J.F. Absence of cardiovascular effects in the anaesthetized rat. (PC) 119*P*

CHAPMAN R.A. & SULEMAN Issak H. Changes in a^i_{Na} and pH_i in isolated ferret ventricular muscle on repletion of the bathing Ca following a period of Ca-deprivation. (PC) 120*P*

CHAPMAN R.A. & RODRIGO G.C. The effects of membrane potential and extracellular potassium on intracellular sodium activity in isolated ferret papillary muscle. (PC) 121*P*

CHARLTON H.M., FINK G., MAYES C.R., MCQUEEN J. & WATTS A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. (C) 41*P*

CHARLTON Milton P. *see* AUGUSTINE George J. & CHARLTON Milton P. Calcium dependence of presynaptic calcium current and post-synaptic response at the squid giant synapse. 619

CHESLER Mitchell Regulation of intracellular pH in reticulospinal neurones of the lamprey, *Petromyzon marinus*. 241

CHIQUET M. *see* ACKLIN S.E. & CHIQUET M. An extracellular matrix factor mediates rapid outgrowth of identified leach neurones in culture. (C) 55*P*

CHOWDHURY Muhammad, FILLENZ Marianne & STEARDO Luca CCK stimulates dopamine synthesis in rat striatum by a cAMP-dependent mechanism. (C) 50*P*

CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

CLARKE G. & WRIGHT D.M. Role of the sympathetic nervous system in kappa-opioid inhibition of milk ejection in the anaesthetized lactating rat. (C) 42*P*

CLOUGH Geraldine & MICHEL C.C. The ultrastructure of frog capillaries following perfusion with the ionophore A23187. (C) 17*P*

COCKROFT J.R. *see* BARROW S.E., COCKROFT J.R., HICKLING N.E. & RITTER J.M. Bradykinin-induced 13,14-dihydro-15-oxo-prostaglandin $F_{2\alpha}$ production in man. (PC) 106*P*

COLINO Asuncion & HALLIWELL James Effects of serotonin in rat hippocampus *in vitro*: differential responsiveness of CA_1 neurones along the septo-temporal axis. (PC) 112*P*

COLLINS P., GRIFFITH T.M., HENDERSON A.H. & LEWIS M.J. Endothelium-derived relaxing factor alters calcium fluxes in rabbit aorta: a cyclic guanosine monophosphate-mediated effect. 427

COLOMO F., LOMBARDI V. & PIAZZESI G. Recovery of tension after step length changes applied to tetanized isolated frog muscle fibres during constant velocity stretches. (C) 87*P*

COMPTON A.M. *see* BENNETT T., COMPTON A.M. & GARDINER S.M. Changes in regional vascular resistance following administration of α-adrenoceptor antagonists to conscious, unrestrained, Long Evans rats. (C) 18*P*

COOKE R.H. & LAMB T.D. An electrophysiological apparatus for recording from photoreceptors under normal room lighting conditions. (D) 11*P*

COPE M., DELPHY D.T., REYNOLDS E.O.R., WRAY Susan & WYATT J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. (C) 15*P*

COSTA M. *see* BORNSTEIN J.C., COSTA M. & FURNESS J.B. Synaptic inputs to immunohistochemically identified neurones in the submucous plexus of the guinea-pig small intestine. 465

COTTRELL G.A. *see* CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

CRAGOE JR, J.E., EHRENFELD J. & HARVEY B.J. Acid–base disturbances, potassium conductance and transcellular cross-talk in the isolated epithelium of frog skin. (C) 31*P*

CULL-CANDY S.G., DILGER P., MARSHALL C.G. & OGDEN D.C. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. (PC) 114*P*

CUSACK N.J. *see* BORN G.V.R., CUSACK N.J., DARWIN Carola & MCCLURE Myra Prolongation of bleeding time in rats by ADP receptor antagonists. (C) 22*P*

DANIEL P.M., GUTHRIE D.L. & WARLEY Alice Decrease in lymphocytes in the blood of diabetic rats. (C) 81*P*

DARWIN Carola *see* BORN G.V.R., CUSACK N.J., DARWIN Carola & MCCLURE Myra Prolongation of bleeding time in rats by ADP receptor antagonists. (C) 22*P*

DAVSON H., PRESTON J.E., SEGAL M.B. & ZLOKOVIC B.V. 100% inhibition of cerebrospinal fluid (CSF) secretion by 10 mM $AlCl_3$ in the rabbit. An artifact. (C) 54*P*

DAWES G.S. *see* BAMFORD O.S., DAWES G.S., DENNY R. & WARD R.A. Effects of the α_2-adrenergic agonist clonidine and its antagonist idazoxan on the fetal lamb. 29

DAW N.W. *see* BRUNKEN W.J. & DAW N.W. Effect of indoleamine agonists and antagonists on the response of ganglion cells in the rabbit retina. (C) 59*P*

DAY B.L., DICK J.P.R., MARSDEN C.D., ROTHWELL J.D. & THOMPSON P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. (C) 45*P*

DEGOEDE J. *see* BERKENBOSCH A., DEGOEDE J., OLIEVIER C.N. & SCHUITMAKER J.J. A pseudo-rebreathing technique for assessing the ventilatory response to carbon dioxide in cats. 483

DE HAAN A. *see* BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

DE HAAN E.J. *see* BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

DELPHY D.T. *see* COPE M., DELPHY D.T., REYNOLDS E.O.R., WRAY Susan & WYATT J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. (C) 15*P*

DENAVIT-SAUBIÉ Monique *see* CHAMPAGNAT J., DENAVIT-SAUBIÉ Monique, GRANT Kirsty & SHEN K.F. Organization of synaptic transmission in the mammalian solitary complex, studied *in vitro*. 551

DENNY R. *see* BAMFORD O.S., DAWES G.S., DENNY R. & WARD R.A. Effects of the α_2-adrenergic agonist clonidine and its antagonist idazoxan on the fetal lamb. 29

DESYPRIS G. & PARRY D.J. The effect of gender on reinnervation of soleus muscles of dystrophic mice (C57BL/6J dy^{2J}/dy^{2J}). (C) 97*P*

DE TOMBE P. *see* BUCX J.J.J., DE TOMBE P., SCHOUTEN V.J.A. & TER KEURS H.E.D.J. Effect of Sr^{2+} on force and sarcomere length in heart muscle of rat. (C) 96*P*

DICK J.P.R. *see* DAY B.L., DICK J.P.R., MARSDEN C.D., ROTHWELL J.D. & THOMPSON P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. (C) 45*P*

DILGER P. *see* CULL-CANDY S.G., DILGER P., MARSHALL C.G. & OGDEN D.C. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. (PC) 114*P*

DOCHERTY R.J. Gd^{3+} specifically blocks a component of voltage-sensitive Ca current in NG108 15 cell type. (C) 69*P*

DUCH D.S., LEVINSON S.R., RECIO-PINTO E. & URBAN B.W. Purified and unpurified sodium channels from eel electroplax bilayers. (C) 66*P*

DUFFET J.M. *see* BEALE Karen J., DUFFET J.M., FORSLING Mary L. & PEYSNER K. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. (C) 38*P*

DUNLOP S.A. *see* BEAZLEY L.D. & DUNLOP S.A. A retino-retinal projection cannot account for high optic axon numbers during development in the marsupial *Setonix brachyurus*, quokka. (C) 61*P*

DUNNE M.J. & PETERSEN O.H. GTP and ADP activate ATP-inhibited K^+ channels in the insulin-secreting cell line RINm5F. (C) 67*P*

DZIEGIELEWSKA K.M. *see* CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

EDWARDS R.H.T., JACKSON M.J., NOLAN G.M. & WAGENMAKERS A.J.M. A mechanism for the reduced parvalbumin content found in dystrophic muscle. (C) 89*P*

EGAN T., NOBLE D., NOBLE S.J., POWELL T. & TWIST V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. (C) 94*P*

EHRENFELD J. *see* CRAGOE JR, J.E., EHRENFELD J. & HARVEY B.J. Acid–base disturbances, potassium conductance and transcellular cross-talk in the isolated epithelium of frog skin. (C) 31*P*

EISNER D.A. *see* CANNELL M.B., EISNER D.A., LEDERER W.J. & VALDEOLMILLOS M. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. 193

EKBLOM B. *see* BLOMSTRAND E., EKBLOM B. & NEWSHOLME E.A. Maximum activities of key glycolytic and oxidative enzymes in human muscle from differently trained individuals. 111

EKMAN R., EKSTROM J., HAKANSON R., SJOGREN S. & SUNDLER F. Calcitonin gene-related peptide in rat salivary glands. (C) 36*P*

EKSTROM J., GARRETT J.R., MANSSON B. & TOBIN G. Effects of chronic sympathectomy on para-sympathetic secretion of saliva from rat parotid glands. (C) 32*P*

EKSTROM J. *see* EKMAN R., EKSTROM J., HAKANSON R., SJOGREN S. & SUNDLER F. Calcitonin gene-related peptide in rat salivary glands. (C) 36*P*

EVANS A.L., HARRISON Linda M. & STEPHENS J.A. Task-dependent changes in the cutaneomuscular reflex response in human first dorsal interosseous muscle. (C) 47*P*

FALK G. & SHIELLS R.A. Do horizontal cell responses contribute to the dogfish electroretinogram (ERG)? (PC) 113*P*

FARRELL Stephanie *see* ANDERSON J.V., BHOOLA K.D., BLOOM S.R. & FARRELL Stephanie Mackenzie and N. D. Millar. The influence of physiological changes in circulating atrial natriuretic peptide (ANP) on the excretion of urinary tissue kallikrein in man. (C) 25*P*

FERENCZI M.A., IRVING M. & PECKHAM M. Birefringence transients during relaxation of rabbit de-membranated muscle fibres from rigor following laser flash photolysis of caged ATP. (C) 86*P*

FERWANA O.S., PIRIE Susan C. & POTTS D.J. Postischaemic renal function in anaesthetized rats depends upon the site of occlusion of the blood supply. (C) 28*P*

FIGUEROA J.P., HOFFMAN G.E., MCDONALD T.J. & NATHANIELSZ P.W. Arginine vaspressin (AVP) immunoreactive axons in median eminence external zone and pars distalis of fetal sheep: relationship with corticotropin releasing factor (CRF) immunoreactive axons. (PC) 107*P*

FILLENZ Marianne *see* CHOWDHURY Muhammad, FILLENZ Marianne & STEARDO Luca CCK stimulates dopamine synthesis in rat striatum by a cAMP-dependent mechanism. (C) 50*P*

FINK G. *see* CHARLTON H.M., FINK G., MAYES C.R., MCQUEEN J. & WATTS A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. (C) 41*P*

FINK G., JOHNSON M.S., MINAUR N.J., MITCHELL R. & OGIER S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. (C) 44*P*

FORSLING Mary L. *see* BEALE Karen J., DUFFET J.M., FORSLING Mary L. & PEYSNER K. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. (C) 38*P*

FORSLING M.L. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L. & MUSABAYANE C.T. The influence of neurohypophysial hormones on renal function in the acutely hypophysectomized rat. 439

FORSLING M.L. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

FORSTER I.C. *see* BEKKERS J.M., FORSTER I.C., GREEF N.G. & KEYNES R.D. Improvements in the recording of gating currents in the squid giant axon. (D) 9*P*

FORSYTH Karyn M. & POLLOCK D. Morphine and clonidine potentiate field stimulation-induced [^{3}H]noradrenaline in the isolated mouse vas deferens. (PC) 109*P*

FOSTER D.H., THORSON J. & TOMOSZEK A. Acuity for fine-grain motion is better than two-dot separation hyperacuity in the peripheral field of the dark-adapted human eye. (C) 63*P*

FOSTER D.H., SCASE M.O. & TAYLOR S.O. Anomalous loss in blue–green hue discrimination in very brief monochromatic stimuli presented to the normal human eye. (C) 64*P*

FOZZARD H.A., SEJERSTED O.M. & WASSERSTROM J.A. Sodium activation of the Na,K-pump in isolated sheep cardiac Purkinje strands. (C) 91*P*

FRANKEL H.L., LIGHTMAN S.L., POOLE C.J.M. & WILLIAMS T.D.M. Increased sensitivity to the pressor response of AVP in human subjects with high cervical cord transection. (C) 39*P*

FURNESS J.B. *see* BORNSTEIN J.C., COSTA M. & FURNESS J.B. Synaptic inputs to immunohistochemically identified neurones in the submucous plexus of the guinea-pig small intestine. 465

FYFFE R.E.W. The location of Renshaw cell synapses upon cat spinal motoneurones. (C) 98*P*

GANDEVIA S.C. & ROTHWELL J.C. Subthreshold motor commands and the control of human motoneurones. (C) 46*P*

GARDINER Sheila M. *see* BENNETT Terence & GARDINER Sheila M. Fluid and electrolyte handling in Long Evans and Brattelboro rat following injection of polyethylene glycol. 407

GARDINER S.M. *see* BENNETT T., COMPTON A.M. & GARDINER S.M. Changes in regional vascular resistance following administration of α-adrenoceptor antagonists to conscious, unrestrained, Long Evans rats. (C) 18*P*

GARRETT J.R. *see* EKSTROM J., GARRETT J.R., MANSSON B. & TOBIN G. Effects of chronic sympathectomy on parasympathetic secretion of saliva from rat parotid glands. (C) 32*P*

GARRETT J.R. *see* ASKING B., GARRETT J.R. & PROCTOR G.B. Non-parallel features in parasympathetic and sympathetic parotid saliva from rats. (C) 33*P*

GRANT Kirsty *see* CHAMPAGNAT J., DENAVIT-SAUBIÉ Monique, GRANT Kirsty & SHEN K.F. Organization of synaptic transmission in the mammalian solitary complex, studied *in vitro*. 551

GREEF N.G. *see* BEKKERS J.M., FORSTER I.C., GREEF N.G. & KEYNES R.D. Improvements in the recording of gating currents in the squid giant axon. (D) 9*P*

GREENWOOD J., HAZELL A.S., LANTOS P.L., LUTHERT P.J. & PRATT O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. (C) 53*P*

GRIFFITH T.M. *see* COLLINS P., GRIFFITH T.M., HENDERSON A.H. & LEWIS M.J. Endothelium-derived relaxing factor alters calcium fluxes in rabbit aorta: a cyclic guanosine monophosphate-mediated effect. 427

GRISSMER S. Properties of potassium and sodium channels in frog internode. 119

GRUNDY D., HUTSON D. & SCRATCHERD T. A permissive role for the vagus nerves in the genesis of antro-antral reflexes in the anaesthetized ferret. 377

GUTHRIE D.L. *see* DANIEL P.M., GUTHRIE D.L. & WARLEY Alice Decrease in lymphocytes in the blood of diabetic rats. (C) 81*P*

HAKANSON R. *see* EKMAN R., EKSTROM J., HAKANSON R., SJOGREN S. & SUNDLER F. Calcitonin gene-related peptide in rat salivary glands. (C) 36*P*

HALES C.N. *see* ASHFORD M.L.J., HALES C.N. & STURGESS N.C. Adenosine triphosphate inhibits the activity of the calcium-activated non-selective cation channel in a rat insulinoma cell line. (PC) 116*P*

HALLIWELL James *see* COLINO Asuncion & HALLIWELL James Effects of serotonin in rat hippocampus *in vitro*: differential responsiveness of CA_1 neurones along the septo-temporal axis. (PC) 112*P*

HAMMOND P. & MOUAT G.S.V. A versatile generator of static visual noise, interfaced with the Innisfree 'Picasso' Image synthesizer. (D) 3*P*

HAMMOND P. & MOUAT G.S.V. Interocular transfer of motion after-effects in complex cells of feline striate cortex. (PC) 99*P*

HANSON M.A. *see* BENNS L.M. & HANSON M.A. Properties of neurones in the rat trigeminal nucleus caudalis responding to stimulation of the ipsilateral parietal meninges. (PC) 108*P*

HARDING S.E., KIRBY M.S., POOLE-WILSON P.A. & VESCOVO G. Continuous display of length change of electrically stimulated isolated cardiac myocytes from rat and rabbit. (D) 4*P*

HARRISON Linda M. *see* EVANS A.L., HARRISON Linda M. & STEPHENS J.A. Task-dependent changes in the cutaneomuscular reflex response in human first dorsal interosseous muscle. (C) 47*P*

HART George *see* BOYETT Mark R., HART George & LEVI Allan J. Dissociation between force and intracellular sodium activity with strophanthidin in isolated sheep Purkinje fibres. 311

HARTOG A.F. *see* BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

HARVEY B.J. *see* CRAGOE JR, J.E., EHRENFELD J. & HARVEY B.J. Acid–base disturbances, potassium conductance and transcellular cross-talk in the isolated epithelium of frog skin. (C) 31*P*

HATHER N.Y. *see* CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

HAYNES L.W. Regulation of nerve growth factor-dependent growth of peripheral axons in the Japanese quail *in vitro* by α-melanotropin and its derivatives. (C) 56*P*

HAZELL A.S. *see* GREENWOOD J., HAZELL A.S., LANTOS P.L., LUTHERT P.J. & PRATT O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. (C) 53*P*

HEISTAD Donald D. *see* BROWN Bruce P. & HEISTAD Donald D. Capacitance of the rabbit portal vein and inferior vena cava. 417

HENDERSON A.H. *see* COLLINS P., GRIFFITH T.M., HENDERSON A.H. & LEWIS M.J. Endothelium-derived relaxing factor alters calcium fluxes in rabbit aorta: a cyclic guanosine monophosphate-mediated effect. 427

HENQUIN J.C. & MEISSNER H.P. Cyclic adenosine monophosphate differently affects the response of mouse pancreatic β-cells to various amino acids. 77

HENRY G.H., WONG R.O.L. & WYE-DVORAK J. Distribution of neurones in the retinal ganglion cell layer of the Tammar Wallaby. (C) 60*P*

HERRLING Paul L. & TURSKI W.A. Modulatory effects of NMDA agonists on cortically evoked EPSPs in cat caudate nucleus are dependent on stimulus frequency. (C) 57*P*

HERVEY G.R., SIVAPALAN K. & TOBIN G. Automated feeding of rats by gastric cannula. (D) 5*P*

HEWSON J.J. A miniature modular multichannel pulse generator for use in voltage clamp and related experiments. (D) 6*P*

HICKLING N.E. *see* BARROW S.E., COCKROFT J.R., HICKLING N.E. & RITTER J.M. Bradykinin-induced 13,14-dihydro-15-oxo-prostaglandin $F_{2\alpha}$ production in man. (PC) 106*P*

HILL R.G. *see* BODEN P.R. & HILL R.G. Evidence for the cholecystokinin (CCK) fragments CCK-8S, CCK-4 and pentagastrin sharing a common site of action on rat hipocampal CA1 neurones *in vitro*. (C) 48*P*

HILL W.A.G. *see* BOWSER-RILEY F., HILL W.A.G. & SMITH E.B. The use of strychnine as a model for the design of drugs to combat the action of pressure on mice. (PC) 101*P*

HOFFMAN G.E. *see* FIGUEROA J.P., HOFFMAN G.E., MCDONALD T.J. & NATHANIELSZ P.W. Arginine vaspressin (AVP) immunoreactive axons in median eminence external zone and pars distalis of fetal sheep: relationship with corticotropin releasing factor (CRF) immunoreactive axons. (PC) 107*P*

HO Stephen *see* BENNETT Max, HO Stephen & LAVIDIS Nickolas Competition between segmental nerves at end-plates in rat gastrocnemius muscle during loss of polyneuronal innervation. 351

HREASH F. *see* CHAPMAN J.C., HREASH F. & LAYCOCK J.F. Absence of cardiovascular effects in the anaesthetized rat. (PC) 119*P*

HUGHES J.B.M., MAXWELL D.L. & NYE P.C.G. The effects of almitrine on the excitation of carotid body chemoreceptor discharge by hypoxia and hypercapnia in the cat. (C) 16*P*

HUTCHINGS M.E., KING A.J. & MOORE D.R. The representation of auditory space in the superior colliculus of ferrets raised with abnormal binaural cues during postnatal development. (C) 49*P*

HUTSON D. *see* GRUNDY D., HUTSON D. & SCRATCHERD T. A permissive role for the vagus nerves in the genesis of antro-antral reflexes in the anaesthetized ferret. 377

IRVING M. *see* FERENCZI M.A., IRVING M. & PECKHAM M. Birefringence transients during relaxation of rabbit de-membranated muscle fibres from rigor following laser flash photolysis of caged ATP. (C) 86*P*

IVENS Ingeborg Different properties of two voltage-dependent inward currents of the ciliate *Stylonchia mytilus*. 1

IZUTSU Kenneth T. & JOHNSON Dale E. Changes in elemental concentrations of rat parotid acinar cells following pilocarpine stimulation. 297

JACKSON M.J. *see* EDWARDS R.H.T., JACKSON M.J., NOLAN G.M. & WAGENMAKERS A.J.M. A mechanism for the reduced parvalbumin content found in dystrophic muscle. (C) 89*P*

JAFFE Laurinda A., KADO Raymond T. & KLINE Douglas A calcium-activated sodium conductance produces a long-duration action potential in the egg of a nemertean worm. 263

JHAMANDAS Jack H. & RENAUD Leo P. A γ-aminobutyric-acid-mediated baroreceptor input to supraoptic vasopressin neurones in the rat. 595

JOHNSON Dale E. *see* IZUTSU Kenneth T. & JOHNSON Dale E. Changes in elemental concentrations of rat parotid acinar cells following pilocarpine stimulation. 297

JOHNSON M.S. *see* FINK G., JOHNSON M.S., MINAUR N.J., MITCHELL R. & OGIER S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. (C) 44*P*

JONES P.W. & WAKEFIELD Julie M. Cardiac output and ventilation during lower body negative pressure applied during steady-state exercise in man. (C) 23*P*

JONES S.A. & SUMMERLEE A.J.S. Relaxin increases blood pressure and vasopressin levels in anaesthetized rats. (C) 37*P*

JORDAN D. *see* COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

KADO Raymond T. *see* JAFFE Laurinda A., KADO Raymond T. & KLINE Douglas A calcium-activated sodium conductance produces a long-duration action potential in the egg of a nemertean worm. 263

KALFAKAKOU V. & SIMONS T.J.B. The mechanism of zinc uptake into human red blood cells. (C) 75*P*

KAY I.S. *see* ARMSTRONG D.J., KAY I.S. & RUSSELL N.J.W. MDL 72222 antagonizes the reflex tachypnoeic response to miliary pulmonary embolism in anaesthetized rabbits. (C) 13*P*

KAY R.N.B. *see* BUCHAN W., KAY R.N.B., SASAKI Y. & SCOTT D. Effects of abrupt changes in food and potassium intake on the rumen sodium reservoir in sheep. (C) 84*P*

KELLY L.P. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

KELLY R. *see* ASHCROFT Frances M., ASHCROFT S.J.H., KFAKEI M. & KELLY R. ADP modulates the ATP-sensitivity of the K-channel closed by glucose in isolated rat pancreatic B-cells. (C) 68*P*

KENDRICK K.M. *see* BALDWIN B.A., KENDRICK K.M. & KEVERENE E.B. Intracerebroventricular oxytocin stimulates maternal behaviour in the sheep. (C) 80*P*

KERNOHAN G. *see* ADGEY A. A. Jennifer, ALLEN J.D., ANDERSON J., CARLISLE E.J.F. & KERNOHAN G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. (C) 24*P*

KEVERENE E.B. *see* BALDWIN B.A., KENDRICK K.M. & KEVERENE E.B. Intracerebroventricular oxytocin stimulates maternal behaviour in the sheep. (C) 80*P*

KEYNES R.D. *see* BEKKERS J.M., FORSTER I.C., GREEF N.G. & KEYNES R.D. Improvements in the recording of gating currents in the squid giant axon. (D) 9*P*

KFAKEI M. *see* ASHCROFT Frances M., ASHCROFT S.J.H., KFAKEI M. & KELLY R. ADP modulates the ATP-sensitivity of the K-channel closed by glucose in isolated rat pancreatic B-cells. (C) 68*P*

KILBINGER H., RACKE K. & SCHWORER H. Cholinergic modulation of the spontaneous release of 5-hydroxytryptamine (5-HT) from the enterochromaffin cells of the *in vitro* vascularly perfused guinea-pig ileum. (PC) 104*P*

KING A.J. *see* HUTCHINGS M.E., KING A.J. & MOORE D.R. The representation of auditory space in the superior colliculus of ferrets raised with abnormal binaural cues during postnatal development. (C) 49*P*

KIRBY M.S. *see* HARDING S.E., KIRBY M.S., POOLE-WILSON P.A. & VESCOVO G. Continuous display of length change of electrically stimulated isolated cardiac myocytes from rat and rabbit. (D) 4*P*

KLINE Douglas *see* JAFFE Laurinda A., KADO Raymond T. & KLINE Douglas A calcium-activated sodium conductance produces a long-duration action potential in the egg of a nemertean worm. 263

KRIEGER C. & SEARS T.A. The development of voltage-dependent conductances in murine spinal cord neurones in culture. (C) 70*P*

LACEY M.G., MERCURI N.B. & NORTH R.A. Dopamine hyperpolarizes neurones in the rat substantia nigra zona compacta *in vitro* by increasing potassium conductance. (C) 51*P*

LAKIE M. & TURNIDGE Janet M. Long and short term human muscle thixotrophy. (C) 88*P*

LAMBERT J.J. *see* CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

LAMB T.D. *see* COOKE R.H. & LAMB T.D. An electrophysiological apparatus for recording from photoreceptors under normal room lighting conditions. (D) 11*P*

LAMB T.D. & MATTHEWS H.R. Incorporation of hydrolysis-resistance analogues of GTP into rod photoreceptors isolated from the tiger salamander. (C) 58*P*

LANTOS P.L. *see* GREENWOOD J., HAZELL A.S., LANTOS P.L., LUTHERT P.J. & PRATT O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. (C) 53*P*

LAVIDIS Nickolas *see* BENNETT Max, Ho Stephen & LAVIDIS Nickolas Competition between segmental nerves at end-plates in rat gastrocnemius muscle during loss of polyneuronal innervation. 351

LAYCOCK J.F. & LIGHTMAN S.L. The cardiovascular effects of vasopressin in the anaesthetized Brattleboro rat. (C) 20*P*

LAYCOCK J.F. *see* CHAPMAN J.C., HREASH F. & LAYCOCK J.F. Absence of cardiovascular effects in the anaesthetized rat. (PC) 119*P*

LEDERER W.J. *see* CANNELL M.B., EISNER D.A., LEDERER W.J. & VALDEOLMILLOS M. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. 193

LEDINGHAM J.G.G. & RAINE A.E.G. Natriuretic response to atrial natriuretic peptide in the isolated perfused rat kidney. (C) 26*P*

LEES P.D., LOVICK A.H.J., PICKARD J.D. & RICHARDS H.K. Autoradiographic measurement of regional pituitary blood flow in the conscious rat. (C) 19*P*

LE GROS G. *see* CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

LEMON R.N., MANTEL G.W.H. & MUIR R.B. Corticospinal facilitation of hand muscles during voluntary movement in the conscious monkey. 497

LEMON R.N. *see* BUYS E.J., LEMON R.N., MANTEL G.W.H. & MUIR R.B. Selective facilitation of different hand muscles by single corticospinal neurones in the conscious monkey. 529

LEVI Allan J. *see* BOYETT Mark R., HART George & LEVI Allan J. Dissociation between force and intracellular sodium activity with strophanthidin in isolated sheep Purkinje fibres. 311

LEVINSON S.R. *see* DUCH D.S., LEVINSON S.R., RECIO-PINTO E. & URBAN B.W. Purified and unpurified sodium channels from eel electroplax bilayers. (C) 66*P*

LEWIS M.J. *see* COLLINS P., GRIFFITH T.M., HENDERSON A.H. & LEWIS M.J. Endothelium-derived relaxing factor alters calcium fluxes in rabbit aorta: a cyclic guanosine monophosphate-mediated effect. 427

LIGHTMAN S.L. *see* LAYCOCK J.F. & LIGHTMAN S.L. The cardiovascular effects of vasopressin in the anaesthetized Brattleboro rat. (C) 20*P*

LIGHTMAN S.L. *see* FRANKEL H.L., LIGHTMAN S.L., POOLE C.J.M. & WILLIAMS T.D.M. Increased sensitivity to the pressor response of AVP in human subjects with high cervical cord transection. (C) 39*P*

LINTON R.A.F. *see* BAND D.M. & LINTON R.A.F. The effect of potassium on carotid body chemoreceptor discharge in the anaesthetized cat. 39

LIPP P. & POTT L. Ca-dependent inactivation of Ca current causes apparent reversal of transient inward current in single cardiac myocytes. (C) 92*P*

LOMBARDI V. *see* COLOMO F., LOMBARDI V. & PIAZZESI G. Recovery of tension after step length changes applied to tetanized isolated frog muscle fibres during constant velocity stretches. (C) 87*P*

LOVICK A.H.J. *see* LEES P.D., LOVICK A.H.J., PICKARD J.D. & RICHARDS H.K. Autoradiographic measurement of regional pituitary blood flow in the conscious rat. (C) 19*P*

LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

LUTHERT P.J. *see* GREENWOOD J., HAZELL A.S., LANTOS P.L., LUTHERT P.J. & PRATT O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. (C) 53*P*

MCCLURE Myra *see* BORN G.V.R., CUSACK N.J., DARWIN Carola & MCCLURE Myra Prolongation of bleeding time in rats by ADP receptor antagonists. (C) 22*P*

McDonald T.J. *see* Figueroa J.P., Hoffman G.E., McDonald T.J. & Nathanielsz P.W. Arginine vaspressin (AVP) immunoreactive axons in median eminence external zone and pars distalis of fetal sheep: relationship with corticotropin releasing factor (CRF) immunoreactive axons. (PC) 107*P*

McQueen J. *see* Charlton H.M., Fink G., Mayes C.R., McQueen J. & Watts A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. (C) 41*P*

Mann G.E. & Norman P.S.R. Trans-stimulation of tracer amino acid efflux from the rat pancreatic epithelium by vascularly injected amino acids. (C) 76*P*

Mansson B. *see* Ekstrom J., Garrett J.R., Mansson B. & Tobin G. Effects of chronic sympathectomy on parasympathetic secretion of saliva from rat parotid glands. (C) 32*P*

Mantel G.W.H. *see* Lemon R.N., Mantel G.W.H. & Muir R.B. Corticospinal facilitation of hand muscles during voluntary movement in the conscious monkey. 497

Mantel G.W.H. *see* Buys E.J., Lemon R.N., Mantel G.W.H. & Muir R.B. Selective facilitation of different hand muscles by single corticospinal neurones in the conscious monkey. 529

Marsden C.D. *see* Day B.L., Dick J.P.R., Marsden C.D., Rothwell J.D. & Thompson P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. (C) 45*P*

Marshall C.G. *see* Cull-Candy S.G., Dilger P., Marshall C.G. & Ogden D.C. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. (PC) 114*P*

Maskrey M. & Trenchard D. Evidence in favour of the increased frequency of breathing in response to lactic acid infusion in rabbits being mediated by non-myelinated vagal afferent fibres. (C) 14*P*

Matthews H.R. A simple microforge for bending the tips of patch pipettes. (D) 8*P*

Matthews H.R. *see* Lamb T.D. & Matthews H.R. Incorporation of hydrolysis-resistance analogues of GTP into rod photoreceptors isolated from the tiger salamander. (C) 58*P*

Maxwell D.L. *see* Hughes J.B.M., Maxwell D.L. & Nye P.C.G. The effects of almitrine on the excitation of carotid body chemoreceptor discharge by hypoxia and hypercapnia in the cat. (C) 16*P*

Mayes C.R. *see* Charlton H.M., Fink G., Mayes C.R., McQueen J. & Watts A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. (C) 41*P*

Meissner H.P. *see* Henquin J.C. & Meissner H.P. Cyclic adenosine monophosphate differently affects the response of mouse pancreatic β-cells to various amino acids. 77

Mercuri N.B. *see* Lacey M.G., Mercuri N.B. & North R.A. Dopamine hyperpolarizes neurones in the rat substantia nigra zona compacta *in vitro* by increasing potassium conductance. (C) 51*P*

Merton J.H.S. & Walker M.C. Facilitation of the long-latency thumb jerk by a cortical stimulus. (D) 7*P*

Merton P.A. & Morton H.B. Magnetic stimulator for the human motor cortex. (D) 10*P*

Michalek R. *see* Arkjle S., Michalek R. & Templeton D. Potentiation of substance P evoked amylase secretion by phorbol esters in the rat parotid gland *in vitro*. (C) 35*P*

Michel C.C. *see* Clough Geraldine & Michel C.C. The ultrastructure of frog capillaries following perfusion with the ionophore A23187. (C) 17*P*

Millhorn David E. Stimulation of raphe (obscurus) nucleus causes long-term potentiation of phrenic nerve activity in cat. 169

Milvae R., Mitchell M.D., Nathanielsz P.W., Pimentel G. & Rosen E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin $F_{2\alpha}$ (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). (C) 40*P*

Minaur N.J. *see* Fink G., Johnson M.S., Minaur N.J., Mitchell R. & Ogier S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. (C) 44*P*

Minors D.S., Nicholson A.N., Spencer M.B., Stone Barbara M., Waterhouse J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

Mitchell M.D. *see* Milvae R., Mitchell M.D., Nathanielsz P.W., Pimentel G. & Rosen E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin $F_{2\alpha}$ (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). (C) 40*P*

Mitchell R. *see* Fink G., Johnson M.S., Minaur N.J., Mitchell R. & Ogier S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. (C) 44*P*

MOLLGARD K. *see* CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

MONTGOMERY R.A.P. *see* ASHLEY R.H., MONTGOMERY R.A.P. & WILLIAMS A.J. Incorporation of several calcium channels from sheep and rabbit heart into planar lipid bilayers. (PC) 115*P*

MOORE D.R. *see* HUTCHINGS M.E., KING A.J. & MOORE D.R. The representation of auditory space in the superior colliculus of ferrets raised with abnormal binaural cues during postnatal development. (C) 49*P*

MORRISON J.F.B., NIMMO A.J. & WHITAKER E.M. The location of beta-adrenoceptor subtypes in the rat urinary bladder. (C) 29*P*

MORTON H.B. *see* MERTON P.A. & MORTON H.B. Magnetic stimulator for the human motor cortex. (D) 10*P*

MORUZZI P. *see* COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

MOUAT G.S.V. *see* HAMMOND P. & MOUAT G.S.V. A versatile generator of static visual noise, interfaced with the Innisfree 'Picasso' Image synthesizer. (D) 3*P*

MOUAT G.S.V. *see* HAMMOND P. & MOUAT G.S.V. Interocular transfer of motion after-effects in complex cells of feline striate cortex. (PC) 99*P*

MOYNIHAN J.B. Comparison of sodium–lithium countertransport in HK and LK red cells of sheep. (PC) 118*P*

MUIR R.B. *see* LEMON R.N., MANTEL G.W.H. & MUIR R.B. Corticospinal facilitation of hand muscles during voluntary movement in the conscious monkey. 497

MUIR R.B. *see* BUYS E.J., LEMON R.N., MANTEL G.W.H. & MUIR R.B. Selective facilitation of different hand muscles by single corticospinal neurones in the conscious monkey. 529

MURPHY Penelope C. & SILLITO Adam M. Continuity of orientation columns between superficial and deep laminae of the cat primary visual cortex. 95

MUSABAYANE C.T. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

MUSABAYANE C.T. *see* BALMENT R.J., BRIMBLE M.J., FORSLING M.L. & MUSABAYANE C.T. The influence of neurohypophysial hormones on renal function in the acutely hypophysectomized rat. 439

NACHSHEN Daniel A., SANCHEZ-ARMASS Sergio & WEINSTEIN Alan M. The regulation of cytosolic calcium in rat brain synaptosomes by sodium-dependent calcium efflux. 17

NAFTALIN R.J. *see* AHSAN M.A., BLEAKMAN D. & NAFTALIN R.J. Prevention of carbachol-induced fluid secretion in isolated rabbit ileum by dopamine. (C) 78*P*

NATHANIELSZ P.W. *see* MILVAE R., MITCHELL M.D., NATHANIELSZ P.W., PIMENTEL G. & ROSEN E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin $F_{2\alpha}$ (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). (C) 40*P*

NATHANIELSZ P.W. *see* FIGUEROA J.P., HOFFMAN G.E., MCDONALD T.J. & NATHANIELSZ P.W. Arginine vaspressin (AVP) immunoreactive axons in median eminence external zone and pars distalis of fetal sheep: relationship with corticotropin releasing factor (CRF) immunoreactive axons. (PC) 107*P*

NEHER Erwin Inositol 1,4,5-triphosphate and GTP-S induce calcium transients in isolated rat peritoneal mast cells. (C) 71*P*

NEWSHOLME E.A. *see* BLOMSTRAND E., EKBLOM B. & NEWSHOLME E.A. Maximum activities of key glycolytic and oxidative enzymes in human muscle from differently trained individuals. 111

NICHOLSON A.N. *see* MINORS D.S., NICHOLSON A.N., SPENCER M.B., STONE Barbara M., WATERHOUSE J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

NIMMO A.J. *see* MORRISON J.F.B., NIMMO A.J. & WHITAKER E.M. The location of beta-adrenoceptor subtypes in the rat urinary bladder. (C) 29*P*

NOBLE D. *see* EGAN T., NOBLE D., NOBLE S.J., POWELL T. & TWIST V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. (C) 94*P*

NOBLE R. *see* BROWN A.G., NOBLE R. & RIDDELL J.S. Relations between spinocervical and postsynaptic dorsal column neurones in the cat. 333

NOBLE S.J. *see* EGAN T., NOBLE D., NOBLE S.J., POWELL T. & TWIST V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. (C) 94*P*

NOLAN G.M. *see* EDWARDS R.H.T., JACKSON M.J., NOLAN G.M. & WAGENMAKERS A.J.M. A mechanism for the reduced parvalbumin content found in dystrophic muscle. (C) 89*P*

NOONEY J.M. *see* CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

NORMAN P.S.R. *see* MANN G.E. & NORMAN P.S.R. Trans-stimulation of tracer amino acid efflux from the rat pancreatic epithelium by vascularly injected amino acids. (C) 76*P*

NORTH R.A. *see* LACEY M.G., MERCURI N.B. & NORTH R.A. Dopamine hyperpolarizes neurones in the rat substantia nigra zona compacta *in vitro* by increasing potassium conductance. (C) 51*P*

NYE P.C.G. *see* HUGHES J.B.M., MAXWELL D.L. & NYE P.C.G. The effects of almitrine on the excitation of carotid body chemoreceptor discharge by hypoxia and hypercapnia in the cat. (C) 16*P*

O'DONNELL C.P. Cardiac output during hypoxia in the anaesthetized cat. (D) 2*P*

OGDEN D.C. *see* CULL-CANDY S.G., DILGER P., MARSHALL C.G. & OGDEN D.C. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. (PC) 114*P*

OGIER S.A. *see* FINK G., JOHNSON M.S., MINAUR N.J., MITCHELL R. & OGIER S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. (C) 44*P*

OLIEVIER C.N. *see* BERKENBOSCH A., DEGOEDE J., OLIEVIER C.N. & SCHUITMAKER J.J. A pseudo-rebreathing technique for assessing the ventilatory response to carbon dioxide in cats. 483

PARRY D.J. *see* DESYPRIS G. & PARRY D.J. The effect of gender on reinnervation of soleus muscles of dystrophic mice (C57BL/6J dy^{2J}/dy^{2J}). (C) 97*P*

PATMORE L. Contractile effects of calcium, sodium and veratridine on embryonic chick heart. (C) 90*P*

PEART W.S. *see* CARMICHAEL D.J.S., PEART W.S. & UNWIN E.J. *In vitro* study of the relationship between whole blood Ca^{2+} ion activity (a_{Ca}) and total plasma calcium concentration in rabbit and man. (C) 21*P*

PECKHAM M. *see* FERENCZI M.A., IRVING M. & PECKHAM M. Birefringence transients during relaxation of rabbit de-membranated muscle fibres from rigor following laser flash photolysis of caged ATP. (C) 86*P*

PETERSEN O.H. *see* DUNNE M.J. & PETERSEN O.H. GTP and ADP activate ATP-inhibited K^+ channels in the insulin-secreting cell line RINm5F. (C) 67*P*

PETERS J.A. *see* CALLAHAN H., COTTRELL G.A., HATHER N.Y., LAMBERT J.J., NOONEY J.M. & PETERS J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. (PC) 117*P*

PEYSNER K. *see* BEALE Karen J., DUFFET J.M., FORSLING Mary L. & PEYSNER K. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. (C) 38*P*

PHILLIPSON O.T. *see* PLUMMER C.J. & PHILLIPSON O.T. Modification of retinal dopamine receptor binding by lesions of the tecto-retinal pathway in the rat. (C) 52*P*

PIAZZESI G. *see* COLOMO F., LOMBARDI V. & PIAZZESI G. Recovery of tension after step length changes applied to tetanized isolated frog muscle fibres during constant velocity stretches. (C) 87*P*

PICKARD J.D. *see* LEES P.D., LOVICK A.H.J., PICKARD J.D. & RICHARDS H.K. Autoradiographic measurement of regional pituitary blood flow in the conscious rat. (C) 19*P*

PIMENTEL G. *see* MILVAE R., MITCHELL M.D., NATHANIELSZ P.W., PIMENTEL G. & ROSEN E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin $F_{2\alpha}$ (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). (C) 40*P*

PIRIE Susan C. *see* FERWANA O.S., PIRIE Susan C. & POTTS D.J. Postischaemic renal function in anaesthetized rats depends upon the site of occlusion of the blood supply. (C) 28*P*

PLUMMER C.J. & PHILLIPSON O.T. Modification of retinal dopamine receptor binding by lesions of the tecto-retinal pathway in the rat. (C) 52*P*

POGGIOLI Josiane & VASSORT Guy Accumulation of inositol phosphates in isolated rat heart following α_1-adrenergic, muscarinic and electrical stimulation. (C) 93*P*

POLLOCK D. *see* FORSYTH Karyn M. & POLLOCK D. Morphine and clonidine potentiate field stimulation-induced [^{3}H]noradrenaline in the isolated mouse vas deferens. (PC) 109*P*

POOLE C.J.M. *see* FRANKEL H.L., LIGHTMAN S.L., POOLE C.J.M. & WILLIAMS T.D.M. Increased sensitivity to the pressor response of AVP in human subjects with high cervical cord transection. (C) 39*P*

POOLE-WILSON P.A. *see* HARDING S.E., KIRBY M.S., POOLE-WILSON P.A. & VESCOVO G. Continuous display of length change of electrically stimulated isolated cardiac myocytes from rat and rabbit. (D) 4*P*

POTT L. *see* LIPP P. & POTT L. Ca-dependent inactivation of Ca current causes apparent reversal of transient inward current in single cardiac myocytes. (C) 92*P*

POTTS D.J. *see* FERWANA O.S., PIRIE Susan C. & POTTS D.J. Postischaemic renal function in anaesthetized rats depends upon the site of occlusion of the blood supply. (C) 28*P*

POWELL T. *see* EGAN T., NOBLE D., NOBLE S.J., POWELL T. & TWIST V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. (C) 94*P*

PRATT O.E. *see* GREENWOOD J., HAZELL A.S., LANTOS P.L., LUTHERT P.J. & PRATT O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. (C) 53*P*

PRESTON J.E. *see* DAVSON H., PRESTON J.E., SEGAL M.B. & ZLOKOVIC B.V. 100% inhibition of cerebrospinal fluid (CSF) secretion by 10 mM $AlCl_3$ in the rabbit. An artifact. (C) 54*P*

PROCTOR G.B. *see* ASKING B., GARRETT J.R. & PROCTOR G.B. Non-parallel features in parasympathetic and sympathetic parotid saliva from rats. (C) 33*P*

PRYOR J.P. & SMITH I.C.H. Twitch responses of the isolated human vas deferens. (PC) 110*P*

PUTNAM Robert W., ROOS Albert & WILDING Timothy J. Properties of the intracellular pH-regulating systems of frog skeletal muscle. 205

PUTNAM Robert W. & ROOS Albert Effect of calcium and other divalent cations on intracellular pH regulation of frog skeletal muscle. 221

RACKE K. *see* KILBINGER H., RACKE K. & SCHWORER H. Cholinergic modulation of the spontaneous release of 5-hydroxytryptamine (5-HT) from the enterochromaffin cells of the *in vitro* vascularly perfused guinea-pig ileum. (PC) 104*P*

RAINE A.E.G. *see* LEDINGHAM J.G.G. & RAINE A.E.G. Natriuretic response to atrial natriuretic peptide in the isolated perfused rat kidney. (C) 26*P*

RECIO-PINTO E. *see* DUCH D.S., LEVINSON S.R., RECIO-PINTO E. & URBAN B.W. Purified and unpurified sodium channels from eel electroplax bilayers. (C) 66*P*

REDHEAD C.R. pH regulation in isolated rat osteoblasts, its sensitivity to parathormone PTH and insulin. (C) 73*P*

REID A.M. & TITCHEN D.A. Electromyographic activity of the reticulo-omasal orifice in fasted and fed lambs. (C) 83*P*

RENAUD Leo P. *see* JHAMANDAS Jack H. & RENAUD Leo P. A γ-aminobutyric-acid-mediated baroreceptor input to supraoptic vasopressin neurones in the rat. 595

RENWICK A.G.C. *see* CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

REYNOLDS E.O.R. *see* COPE M., DELPHY D.T., REYNOLDS E.O.R., WRAY Susan & WYATT J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. (C) 15*P*

REYNOLDS M.L. *see* CHRISTIE D., DZIEGIELEWSKA K.M., LE GROS G., MOLLGARD K., RENWICK A.G.C., REYNOLDS M.L. & SAUNDERS N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

RICHARDS H.K. *see* LEES P.D., LOVICK A.H.J., PICKARD J.D. & RICHARDS H.K. Autoradiographic measurement of regional pituitary blood flow in the conscious rat. (C) 19*P*

RIDDELL J.S. *see* BROWN A.G., NOBLE R. & RIDDELL J.S. Relations between spinocervical and post-synaptic dorsal column neurones in the cat. 333

RITTER J.M. *see* BARROW S.E., COCKROFT J.R., HICKLING N.E. & RITTER J.M. Bradykinin-induced 13,14-dihydro-15-oxo-prostaglandin $F_{2\alpha}$ production in man. (PC) 106*P*

ROBERTSON Brian Some properties of GABA-activated chloride channels in mammalian dorsal root ganglion neurones. (C) 72*P*

ROBINSON Anne D. & WHITAKER Elaine M. Pituitary reproductive hormones during the oestrous cycle in Zucker rats. (C) 43*P*

RODRIGO G.C. *see* CHAPMAN R.A. & RODRIGO G.C. The effects of membrane potential and extracellular potassium on intracellular sodium activity in isolated ferret papillary muscle. (PC) 121*P*

Roos Albert *see* Putnam Robert W., Roos Albert & Wilding Timothy J. Properties of the intracellular pH-regulating systems of frog skeletal muscle. 205

Roos Albert *see* Putnam Robert W. & Roos Albert Effect of calcium and other divalent cations on intracellular pH regulation of frog skeletal muscle. 221

Rosen E.D. *see* Milvae R., Mitchell M.D., Nathanielsz P.W., Pimentel G. & Rosen E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin F_{2a} (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). (C) 40*P*

Rothwell J.C. *see* Gandevia S.C. & Rothwell J.C. Subthreshold motor commands and the control of human motoneurones. (C) 46*P*

Rothwell J.D. *see* Day B.L., Dick J.P.R., Marsden C.D., Rothwell J.D. & Thompson P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. (C) 45*P*

Russell N.J.W. *see* Armstrong D.J., Kay I.S. & Russell N.J.W. MDL 72222 antagonizes the reflex tachypnoeic response to miliary pulmonary embolism in anaesthetized rabbits. (C) 13*P*

Sachs J.R. The order of addition of sodium and release of potassium at the inside of the sodium pump of the human red cell. 149

Sanchez-Armass Sergio *see* Nachshen Daniel A., Sanchez-Armass Sergio & Weinstein Alan M. The regulation of cytosolic calcium in rat brain synaptosomes by sodium-dependent calcium efflux. 17

Sasaki Y. *see* Buchan W., Kay R.N.B., Sasaki Y. & Scott D. Effects of abrupt changes in food and potassium intake on the rumen sodium reservoir in sheep. (C) 84*P*

Satoh Hiroyasu & Seyama Issei On the mechanism by which changes in extracellular pH affect the electrical activity of the rabbit sino-atrial node. 181

Saunders N.R. *see* Christie D., Dziegielewska K.M., Le Gros G., Mollgard K., Renwick A.G.C., Reynolds M.L. & Saunders N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. (C) 82*P*

Scase M.O. *see* Foster D.H., Scase M.O. & Taylor S.O. Anomalous loss in blue–green hue discrimination in very brief monochromatic stimuli presented to the normal human eye. (C) 64*P*

Scholfield C.N. Afferent axons of the guinea-pig olfactory cortex show Ca-mediated tails. (C) 65*P*

Schouten V.J.A. *see* Bucx J.J.J., de Tombe P., Schouten V.J.A. & ter Keurs H.E.D.J. Effect of Sr^{2+} on force and sarcomere length in heart muscle of rat. (C) 96*P*

Schuitmaker J.J. *see* Berkenbosch A., DeGoede J., Olievier C.N. & Schuitmaker J.J. A pseudo-rebreathing technique for assessing the ventilatory response to carbon dioxide in cats. 483

Schwaber J.S. *see* Cox G.E., Jordan D., Moruzzi P., Schwaber J.S., Spyer K.M. & Turner S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

Schworer H. *see* Kilbinger H., Racke K. & Schworer H. Cholinergic modulation of the spontaneous release of 5-hydroxytryptamine (5-HT) from the enterochromaffin cells of the *in vitro* vascularly perfused guinea-pig ileum. (PC) 104*P*

Scott D. *see* Buchan W., Kay R.N.B., Sasaki Y. & Scott D. Effects of abrupt changes in food and potassium intake on the rumen sodium reservoir in sheep. (C) 84*P*

Scratcherd T. *see* Grundy D., Hutson D. & Scratcherd T. A permissive role for the vagus nerves in the genesis of antro-antral reflexes in the anaesthetized ferret. 377

Sears T.A. *see* Krieger C. & Sears T.A. The development of voltage-dependent conductances in murine spinal cord neurones in culture. (C) 70*P*

Segal M.B. *see* Davson H., Preston J.E., Segal M.B. & Zlokovic B.V. 100% inhibition of cerebrospinal fluid (CSF) secretion by 10 mM $AlCl_3$ in the rabbit. An artifact. (C) 54*P*

Sejersted O.M. *see* Fozzard H.A., Sejersted O.M. & Wasserstrom J.A. Sodium activation of the Na,K-pump in isolated sheep cardiac Purkinje strands. (C) 91*P*

Seyama Issei *see* Satoh Hiroyasu & Seyama Issei On the mechanism by which changes in extracellular pH affect the electrical activity of the rabbit sino-atrial node. 181

Shen K.F. *see* Champagnat J., Denavit-Saubié Monique, Grant Kirsty & Shen K.F. Organization of synaptic transmission in the mammalian solitary complex, studied *in vitro*. 551

Shiells R.A. *see* Falk G. & Shiells R.A. Do horizontal cell responses contribute to the dogfish electroretinogram (ERG)? (PC) 113*P*

Shirley D.G. & Walter S.J. Proximal tubular function on potassium-depleted rats. (C) 27*P*

Shirley D.G., Walter S.J. & Zewde T. Renal function in rats before and after preparation for clearance experiments. (PC) 100*P*

SILLITO Adam M. *see* MURPHY Penelope C. & SILLITO Adam M. Continuity of orientation columns between superficial and deep laminae of the cat primary visual cortex. 95

SIMONS T.J.B. *see* KALFAKAKOU V. & SIMONS T.J.B. The mechanism of zinc uptake into human red blood cells. (C) 75*P*

SIRINATHSINGHJI D.S.J. Inhibitory influence of corticotrophin releasing factor on sexual behaviour in the male rat. (C) 79*P*

SIVAPALAN K. *see* HERVEY G.R., SIVAPALAN K. & TOBIN G. Automated feeding of rats by gastric cannula. (D) 5*P*

SJOGREN S. *see* EKMAN R., EKSTROM J., HAKANSON R., SJOGREN S. & SUNDLER F. Calcitonin gene-related peptide in rat salivary glands. (C) 36*P*

SMITH E.B. *see* BOWSER-RILEY F., HILL W.A.G. & SMITH E.B. The use of strychnine as a model for the design of drugs to combat the action of pressure on mice. (PC) 101*P*

SMITH I.C.H. *see* AMOBI N.I.B. & SMITH I.C.H. Effect of calmodulin antagonist, W-7 on neuromuscular responses of isolated rat vas deferens. (PC) 103*P*

SMITH I.C.H. *see* PRYOR J.P. & SMITH I.C.H. Twitch responses of the isolated human vas deferens. (PC) 110*P*

SPENCER M.B. *see* MINORS D.S., NICHOLSON A.N., SPENCER M.B., STONE Barbara M., WATERHOUSE J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

SPRAGGS C.F. *see* BUNCE K.T. & SPRAGGS C.F. The effects of omeprazole, an H^+/K^+-ATPase inhibitor, on ion transport in guinea-pig isolated gastric mucosa. (C) 77*P*

SPYER K.M. *see* COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

STEARDO Luca *see* CHOWDHURY Muhammad, FILLENZ Marianne & STEARDO Luca CCK stimulates dopamine synthesis in rat striatum by a cAMP-dependent mechanism. (C) 50*P*

STEPHENS J.A. *see* EVANS A.L., HARRISON Linda M. & STEPHENS J.A. Task-dependent changes in the cutaneomuscular reflex response in human first dorsal interosseous muscle. (C) 47*P*

STONE Barbara M. *see* MINORS D.S., NICHOLSON A.N., SPENCER M.B., STONE Barbara M., WATERHOUSE J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

STURGESS N.C. *see* ASHFORD M.L.J., HALES C.N. & STURGESS N.C. Adenosine triphosphate inhibits the activity of the calcium-activated non-selective cation channel in a rat insulinoma cell line. (PC) 116*P*

SUER A.H. & WALI F.A. Stimulus frequency and post-tetanic potentiation in the detection of rat neuromuscular transmission partially blocked by atracurium. (PC) 102*P*

SULEMAN Issak H. *see* CHAPMAN R.A. & SULEMAN Issak H. Changes in a^i_{Na} and pH_i in isolated ferret ventricular muscle on repletion of the bathing Ca following a period of Ca-deprivation. (PC) 120*P*

SUMMERLEE A.J.S. *see* JONES S.A. & SUMMERLEE A.J.S. Relaxin increases blood pressure and vasopressin levels in anaesthetized rats. (C) 37*P*

SUNDLER F. *see* EKMAN R., EKSTROM J., HAKANSON R., SJOGREN S. & SUNDLER F. Calcitonin gene-related peptide in rat salivary glands. (C) 36*P*

TABTI Nacira *see* LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

TAKAI A. & TOMITA T. Glycolysis and oxidative phosphorylation during activation of the sodium pump in the taenia from guinea-pig caecum. 65

TAYLOR S.O. *see* FOSTER D.H., SCASE M.O. & TAYLOR S.O. Anomalous loss in blue–green hue discrimination in very brief monochromatic stimuli presented to the normal human eye. (C) 64*P*

TEMPLETON D. *see* ARKJLE S., MICHALEK R. & TEMPLETON D. Potentiation of substance P evoked amylase secretion by phorbol esters in the rat parotid gland *in vitro*. (C) 35*P*

TERARAR D.A. & VICTORY J.G.G. Influence of halothane on calcium currents in single cells isolated from guinea-pig ventricular muscle. (PC) 122*P*

TER KEURS H.E.D.J. *see* BUCX J.J.J., DE TOMBE P., SCHOUTEN V.J.A. & TER KEURS H.E.D.J. Effect of Sr^{2+} on force and sarcomere length in heart muscle of rat. (C) 96*P*

THESLEFF S. *see* LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

THOMAS A.L. & THOMPSON Sarah J. The effect of propranolol treatment on fetal plasma renin concentration during the last third of gestation on the guinea-pig. (PC) 111*P*

THOMPSON P.D. *see* DAY B.L., DICK J.P.R., MARSDEN C.D., ROTHWELL J.D. & THOMPSON P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. (C) 45*P*

THOMPSON Sarah J. *see* THOMAS A.L. & THOMPSON Sarah J. The effect of propranolol treatment on fetal plasma renin concentration during the last third of gestation on the guinea-pig. (PC) 111*P*

THORSON J. *see* FOSTER D.H., THORSON J. & TOMOSZEK A. Acuity for fine-grain motion is better than two-dot separation hyperacuity in the peripheral field of the dark-adapted human eye. (C) 63*P*

TITCHEN D.A. *see* REID A.M. & TITCHEN D.A. Electromyographic activity of the reticulo-omasal orifice in fasted and fed lambs. (C) 83*P*

TOBIN G. *see* HERVEY G.R., SIVAPALAN K. & TOBIN G. Automated feeding of rats by gastric cannula. (D) 5*P*

TOBIN G. *see* EKSTROM J., GARRETT J.R., MANSSON B. & TOBIN G. Effects of chronic sympathectomy on parasympathetic secretion of saliva from rat parotid glands. (C) 32*P*

TOMITA T. *see* TAKAI A. & TOMITA T. Glycolysis and oxidative phosphorylation during activation of the sodium pump in the taenia from guinea-pig caecum. 65

TOMOSZEK A. *see* FOSTER D.H., THORSON J. & TOMOSZEK A. Acuity for fine-grain motion is better than two-dot separation hyperacuity in the peripheral field of the dark-adapted human eye. (C) 63*P*

TRENCHARD D. *see* MASKREY M. & TRENCHARD D. Evidence in favour of the increased frequency of breathing in response to lactic acid infusion in rabbits being mediated by non-myelinated vagal afferent fibres. (C) 14*P*

TRIGGLE C.R. *see* AKBARALI H.I., BIEGER D. & TRIGGLE C.R. Tetrodotoxin-sensitive and -insensitive relaxations in the rat oesophageal tunica muscularis mucosae. 49

TURNER S.A. *see* COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

TURNIDGE Janet M. *see* LAKIE M. & TURNIDGE Janet M. Long and short term human muscle thixotrophy. (C) 88*P*

TURSKI W.A. *see* HERRLING Paul L. & TURSKI W.A. Modulatory effects of NMDA agonists on cortically evoked EPSPs in cat caudate nucleus are dependent on stimulus frequency. (C) 57*P*

TWIST V.W. *see* EGAN T., NOBLE D., NOBLE S.J., POWELL T. & TWIST V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. (C) 94*P*

UNWIN E.J. *see* CARMICHAEL D.J.S., PEART W.S. & UNWIN E.J. *In vitro* study of the relationship between whole blood Ca^{2+} ion activity (a_{Ca}) and total plasma calcium concentration in rabbit and man. (C) 21*P*

URBAN B.W. *see* DUCH D.S., LEVINSON S.R., RECIO-PINTO E. & URBAN B.W. Purified and unpurified sodium channels from eel electroplax bilayers. (C) 66*P*

VALDEOLMILLOS M. *see* CANNELL M.B., EISNER D.A., LEDERER W.J. & VALDEOLMILLOS M. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. 193

VAN DOORN J.E. *see* BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

VAN DRIESSCHE Willy Lidocaine blockage of basolateral potassium channels in the amphibian urinary bladder. 575

VASSORT Guy *see* POGGIOLI Josiane & VASSORT Guy Accumulation of inositol phosphates in isolated rat heart following α_1-adrenergic, muscarinic and electrical stimulation. (C) 93*P*

VESCOVO G. *see* HARDING S.E., KIRBY M.S., POOLE-WILSON P.A. & VESCOVO G. Continuous display of length change of electrically stimulated isolated cardiac myocytes from rat and rabbit. (D) 4*P*

VICTORY J.G.G. *see* TERARAR D.A. & VICTORY J.G.G. Influence of halothane on calcium currents in single cells isolated from guinea-pig ventricular muscle. (PC) 122*P*

VYSKOČIL F. *see* LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

WADE A.J. An exercise testing system designed for student use. (D) 12*P*

WAGENMAKERS A.J.M. *see* EDWARDS R.H.T., JACKSON M.J., NOLAN G.M. & WAGENMAKERS A.J.M. A mechanism for the reduced parvalbumin content found in dystrophic muscle. (C) 89*P*

WAKEFIELD Julie M. *see* JONES P.W. & WAKEFIELD Julie M. Cardiac output and ventilation during lower body negative pressure applied during steady-state exercise in man. (C) 23*P*

WALI F.A. *see* SUER A.H. & WALI F.A. Stimulus frequency and post-tetanic potentiation in the detection of rat neuromuscular transmission partially blocked by atracurium. (PC) 102*P*

WALKER M.C. *see* MERTON J.H.S. & WALKER M.C. Facilitation of the long-latency thumb jerk by a cortical stimulus. (D) 7*P*

WALTER S.J. *see* SHIRLEY D.G. & WALTER S.J. Proximal tubular function on potassium-depleted rats. (C) 27*P*

WALTER S.J. *see* SHIRLEY D.G., WALTER S.J. & ZEWDE T. Renal function in rats before and after preparation for clearance experiments. (PC) 100*P*

WARD R.A. *see* BAMFORD O.S., DAWES G.S., DENNY R. & WARD R.A. Effects of the α_2-adrenergic agonist clonidine and its antagonist idazoxan on the fetal lamb. 29

WARLEY Alice *see* DANIEL P.M., GUTHRIE D.L. & WARLEY Alice Decrease in lymphocytes in the blood of diabetic rats. (C) 81*P*

WASSERSTROM J.A. *see* FOZZARD H.A., SEJERSTED O.M. & WASSERSTROM J.A. Sodium activation of the Na,K-pump in isolated sheep cardiac Purkinje strands. (C) 91*P*

WATERHOUSE J.M. *see* MINORS D.S., NICHOLSON A.N., SPENCER M.B., STONE Barbara M., WATERHOUSE J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

WATTS A.G. *see* CHARLTON H.M., FINK G., MAYES C.R., MCQUEEN J. & WATTS A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. (C) 41*P*

WEINSTEIN Alan M. *see* NACHSHEN Daniel A., SANCHEZ-ARMASS Sergio & WEINSTEIN Alan M. The regulation of cytosolic calcium in rat brain synaptosomes by sodium-dependent calcium efflux. 17

WESTRA H.G. *see* BERDEN J.A., DE HAAN A., DE HAAN E.J., VAN DOORN J.E., HARTOG A.F. & WESTRA H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. (C) 85*P*

WHITAKER Elaine M. *see* ROBINSON Anne D. & WHITAKER Elaine M. Pituitary reproductive hormones during the oestrous cycle in Zucker rats. (C) 43*P*

WHITAKER E.M. *see* MORRISON J.F.B., NIMMO A.J. & WHITAKER E.M. The location of beta-adrenoceptor subtypes in the rat urinary bladder. (C) 29*P*

WILDING Timothy J. *see* PUTNAM Robert W., ROOS Albert & WILDING Timothy J. Properties of the intracellular pH-regulating systems of frog skeletal muscle. 205

WILKIE D.R. & WRAY Susan The response of the African frog *Xenopus laevis* to increased salinity demonstrated by ^{31}P NMR spectroscopy. (C) 30*P*

WILKINSON J. Does the vagus contain nerve fibres that inhibit gastric acid secretion in the rat? (PC) 105*P*

WILLIAMS A.J. *see* ASHLEY R.H., MONTGOMERY R.A.P. & WILLIAMS A.J. Incorporation of several calcium channels from sheep and rabbit heart into planar lipid bilayers. (PC) 115*P*

WILLIAMS T.D.M. *see* FRANKEL H.L., LIGHTMAN S.L., POOLE C.J.M. & WILLIAMS T.D.M. Increased sensitivity to the pressor response of AVP in human subjects with high cervical cord transection. (C) 39*P*

WOHLFART Bjorn *see* ARLOCK Per & WOHLFART Bjorn Effect of voltage clamp duration on force production of successive twitches in ferret and guinea-pig papillary muscle. (C) 95*P*

WONG R.O.L. *see* HENRY G.H., WONG R.O.L. & WYE-DVORAK J. Distribution of neurones in the retinal ganglion cell layer of the Tammar Wallaby. (C) 60*P*

WRAY Susan *see* COPE M., DELPHY D.T., REYNOLDS E.O.R., WRAY Susan & WYATT J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. (C) 15*P*

WRAY Susan *see* WILKIE D.R. & WRAY Susan The response of the African frog *Xenopus laevis* to increased salinity demonstrated by ^{31}P NMR spectroscopy. (C) 30*P*

WRIGHT D.M. *see* CLARKE G. & WRIGHT D.M. Role of the sympathetic nervous system in kappa-opioid inhibition of milk ejection in the anaesthetized lactating rat. (C) 42*P*

WYATT J.S. *see* COPE M., DELPHY D.T., REYNOLDS E.O.R., WRAY Susan & WYATT J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. (C) 15*P*

WYE-DVORAK J. *see* HENRY G.H., WONG R.O.L. & WYE-DVORAK J. Distribution of neurones in the retinal ganglion cell layer of the Tammar Wallaby. (C) 60*P*

YU S.P. *see* LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

ZEKI S. The anatomy and physiology of area V6 of macaque monkey visual cortex. (C) 62*P*

ZEWDE T. *see* SHIRLEY D.G., WALTER S.J. & ZEWDE T. Renal function in rats before and after preparation for clearance experiments. (PC) 100*P*

ZLOKOVIC B.V. *see* DAVSON H., PRESTON J.E., SEGAL M.B. & ZLOKOVIC B.V. 100% inhibition of cerebrospinal fluid (CSF) secretion by 10 mM $AlCl_3$ in the rabbit. An artifact. (C) 54*P*

CONTENTS OF VOLUME 381

December 1986

IVENS Ingeborg Different properties of two voltage-dependent inward currents of the ciliate *Stylonchia mytilus*. 1

NACHSHEN Daniel A., SANCHEZ-ARMASS Sergio & WEINSTEIN Alan M. The regulation of cytosolic calcium in rat brain synaptosomes by sodium-dependent calcium efflux. 17

BAMFORD O.S., DAWES G.S., DENNY R. & WARD R.A. Effects of the α_2-adrenergic agonist clonidine and its antagonist idazoxan on the fetal lamb. 29

BAND D.M. & LINTON R.A.F. The effect of potassium on carotid body chemoreceptor discharge in the anaesthetized cat. 39

AKBARALI H.I., BIEGER D. & TRIGGLE C.R. Tetrodotoxin-sensitive and -insensitive relaxations in the rat oesophageal tunica muscularis mucosae. 49

TAKAI A. & TOMITA T. Glycolysis and oxidative phosphorylation during activation of the sodium pump in the taenia from guinea-pig caecum. 65

HENQUIN J.C. & MEISSNER H.P. Cyclic adenosine monophosphate differently affects the response of mouse pancreatic β-cells to various amino acids. 77

MURPHY Penelope C. & SILLITO Adam M. Continuity of orientation columns between superficial and deep laminae of the cat primary visual cortex. 95

BLOMSTRAND E., EKBLOM B. & NEWSHOLME E.A. Maximum activities of key glycolytic and oxidative enzymes in human muscle from differently trained individuals. 111

GRISSMER S. Properties of potassium and sodium channels in frog internode. 119

COX G.E., JORDAN D., MORUZZI P., SCHWABER J.S., SPYER K.M. & TURNER S.A. Amygdaloid influences on brain-stem neruones in the rabbit. 135

SACHS J.R. The order of addition of sodium and release of potassium at the inside of the sodium pump of the human red cell. 149

MILLHORN David E. Stimulation of raphe (obscurus) nucleus causes long-term potentiation of phrenic nerve activity in cat. 169

SATOH Hiroyasu & SEYAMA Issei On the mechanism by which changes in extracellular pH affect the electrical activity of the rabbit sino-atrial node. 181

CANNELL M.B., EISNER D.A., LEDERER W.J. & VALDEOLMILLOS M. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. 193

PUTNAM Robert W., ROOS Albert & WILDING Timothy J. Properties of the intracellular pH-regulating systems of frog skeletal muscle. 205

PUTNAM Robert W. & ROOS Albert Effect of calcium and other divalent cations on intracellular pH regulation of frog skeletal muscle. 221

CHESLER Mitchell Regulation of intracellular pH in reticulospinal neurones of the lamprey, *Petromyzon marinus*. 241

JAFFE Laurinda A., KADO Raymond T. & KLINE Douglas A calcium-activated sodium conductance produces a long-duration action potential in the egg of a nemertean worm. 263

MINORS D.S., NICHOLSON A.N., SPENCER M.B., STONE Barbara M., WATERHOUSE J.M. Irregularity of rest and activity: studies on circadian rhythmicity in man. 279

IZUTSU Kenneth T. & JOHNSON Dale E. Changes in elemental concentrations of rat parotid acinar cells following pilocarpine stimulation. 297

BOYETT Mark R., HART George & LEVI Allan J. Dissociation between force and intracellular sodium activity with strophanthidin in isolated sheep Purkinje fibres. 311

BROWN A.G., NOBLE R. & RIDDELL J.S. Relations between spinocervical and post-synaptic dorsal column neurones in the cat. 333

BENNETT Max, HO Stephen & LAVIDIS Nickolas Competition between segmental nerves at end-plates in rat gastrocnemius muscle during loss of polyneuronal innervation. 351

GRUNDY D., HUTSON D. & SCRATCHERD T. A permissive role for the vagus nerves in the genesis of antro-antral reflexes in the anaesthetized ferret. 377

BENHAM C.D. & BOLTON T.B. Spontaneous transient outward currents in single visceral and vascular smooth muscle cells of the rabbit. 385

BENNETT Terence & GARDINER Sheila M. Fluid and electrolyte handling in Long Evans and Brattelboro rat following injection of polyethylene glycol. 407

BROWN Bruce P. & HEISTAD Donald D. Capacitance of the rabbit portal vein and inferior vena cava. 417

COLLINS P., GRIFFITH T.M., HENDERSON A.H. & LEWIS M.J. Endothelium-derived relaxing factor alters calcium fluxes in rabbit aorta: a cyclic guanosine monophosphate-mediated effect. 427

BALMENT R.J., BRIMBLE M.J., FORSLING M.L. & MUSABAYANE C.T. The influence of neurohypophysial hormones on renal function in the acutely hypophysectomized rat. 439

BALMENT R.J., BRIMBLE M.J., FORSLING M.L., KELLY L.P. & MUSABAYANE C.T. A synergistic effect of oxytocin and vasopressin on sodium excretion in the neurohypophysectomized rat. 453

BORNSTEIN J.C., COSTA M. & FURNESS J.B. Synaptic inputs to immunohistochemically identified neurones in the submucous plexus of the guinea-pig small intestine. 465

BERKENBOSCH A., DEGOEDE J., OLIEVIER C.N. & SCHUITMAKER J.J. A pseudorebreathing technique for assessing the ventilatory response to carbon dioxide in cats. 483

LEMON R.N., MANTEL G.W.H. & MUIR R.B. Corticospinal facilitation of hand muscles during voluntary movement in the conscious monkey. 497

BUYS E.J., LEMON R.N., MANTEL G.W.H. & MUIR R.B. Selective facilitation of different hand muscles by single corticospinal neurones in the conscious monkey. 529

CHAMPAGNAT J., DENAVIT-SAUBIÉ Monique, GRANT Kirsty & SHEN K.F. Organization of synaptic transmission in the mammalian solitary complex, studied *in vitro*. 551

VAN DRIESSCHE Willy Lidocaine blockage of basolateral potassium channels in the amphibian urinary bladder. 575

JHAMANDAS Jack H. & RENAUD Leo P. A γ-aminobutyric-acid-mediated baroreceptor input to supraoptic vasopressin neurones in the rat. 595

LUPA M.T., TABTI Nacira, THESLEFF S., VYSKOČIL F. & YU S.P. The nature and origin of calcium-insensitive miniature end-plate potentials at rodent neuromuscular junctions. 607

AUGUSTINE George J. & CHARLTON Milton P. Calcium dependence of presynaptic calcium current and post-synaptic response at the squid giant synapse. 619

PROCEEDINGS OF THE PHYSIOLOGICAL SOCIETY

25–36 *July* 1986

Cambridge Meeting

DEMONSTRATIONS

O'Donnell C.P. Cardiac output during hypoxia in the anaesthetized cat. 2P

Hammond P. & Mouat G.S.V. A versatile generator of static visual noise, interfaced with the Innisfree 'Picasso' Image synthesizer. 3P

Harding S.E., Kirby M.S., Poole-Wilson P.A. & Vescovo G. Continuous display of length change of electrically stimulated isolated cardiac myocytes from rat and rabbit. 4P

Hervey G.R., Sivapalan K. & Tobin G. Automated feeding of rats by gastric cannula. 5P

Hewson J.J. A miniature modular multichannel pulse generator for use in voltage clamp and related experiments. 6P

Merton J.H.S. & Walker M.C. Facilitation of the long-latency thumb jerk by a cortical stimulus. 7P

Matthews H.R. A simple microforge for bending the tips of patch pipettes. 8P

Bekkers J.M., Forster I.C., Greef N.G. & Keynes R.D. Improvements in the recording of gating currents in the squid giant axon. 9P

Merton P.A. & Morton H.B. Magnetic stimulator for the human motor cortex. 10P

Cooke R.H. & Lamb T.D. An electrophysiological apparatus for recording from photoreceptors under normal room lighting conditions. 11P

Wade A.J. An exercise testing system designed for student use. 12P

COMMUNICATIONS

Armstrong D.J., Kay I.S. & Russell N.J.W. MDL 72222 antagonizes the reflex tachypnoeic response to miliary pulmonary embolism in anaesthetized rabbits. 13P

Maskrey M. & Trenchard D. Evidence in favour of the increased frequency of breathing in response to lactic acid infusion in rabbits being mediated by non-myelinated vagal afferent fibres. 14P

Cope M., Delphy D.T., Reynolds E.O.R., Wray Susan & Wyatt J.S. *In vivo* determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by near infrared transmission spectrophotometry. 15P

Hughes J.B.M., Maxwell D.L. & Nye P.C.G. The effects of almitrine on the excitation of carotid body chemoreceptor discharge by hypoxia and hypercapnia in the cat. 16P

Clough Geraldine & Michel C.C. The ultrastructure of frog capillaries following perfusion with the ionophore A23187. 17P

Bennett T., Compton A.M. & Gardiner S.M. Changes in regional vascular resistance following administration of α-adrenoceptor antagonists to conscious, unrestrained, Long Evans rats. 18P

Lees P.D., Lovick A.H.J., Pickard J.D. & Richards H.K. Autoradiographic measurement of regional pituitary blood flow in the conscious rat. 19P

Laycock J.F. & Lightman S.L. The cardiovascular effects of vasopressin in the anaesthetized Brattleboro rat. 20P

Carmichael D.J.S., Peart W.S. & Unwin E.J. *In vitro* study of the relationship between whole blood Ca^{2+} ion activity (a_{Ca}) and total plasma calcium concentration in rabbit and man. 21P

Born G.V.R., Cusack N.J., Darwin Carola & McClure Myra Prolongation of bleeding time in rats by ADP receptor antagonists. 22P

Jones P.W. & Wakefield Julie M. Cardiac output and ventilation during lower body negative pressure applied during steady-state exercise in man. 23P

Adgey A. A. Jennifer, Allen J.D., Anderson J., Carlisle E.J.F. & Kernohan G. Comparison of the dominant frequency of ventricular fibrillation, induced under different conditions in the anaesthetized dog. 24P

Anderson J.V., Bhoola K.D., Bloom S.R. & Farrell Stephanie Mackenzie and N. D. Millar. The influence of physiological changes in circulating atrial natriuretic peptide (ANP) on the excretion of urinary tissue kallikrein in man. 25*P*

Ledingham J.G.G. & Raine A.E.G. Natriuretic response to atrial natriuretic peptide in the isolated perfused rat kidney. 26*P*

Shirley D.G. & Walter S.J. Proximal tubular function on potassium-depleted rats. 27*P*

Ferwana O.S., Pirie Susan C. & Potts D.J. Postischaemic renal function in anaesthetized rats depends upon the site of occlusion of the blood supply. 28*P*

Morrison J.F.B., Nimmo A.J. & Whitaker E.M. The location of beta-adrenoceptor subtypes in the rat urinary bladder. 29*P*

Wilkie D.R. & Wray Susan The response of the African frog *Xenopus laevis* to increased salinity demonstrated by ^{31}P NMR spectroscopy. 30*P*

Cragoe Jr, J.E., Ehrenfeld J. & Harvey B.J. Acid–base disturbances, potassium conductance and transcellular cross-talk in the isolated epithelium of frog skin. 31*P*

Ekstrom J., Garrett J.R., Mansson B. & Tobin G. Effects of chronic sympathectomy on parasympathetic secretion of saliva from rat parotid glands. 32*P*

Asking B., Garrett J.R. & Proctor G.B. Non-parallel features in parasympathetic and sympathetic parotid saliva from rats. 33*P*

Anderson L.C. Adrenergic, cholinergic and peptidergic stimulation of parotid secretion in streptozotocin-diabetic rats. 34*P*

Arkjle S., Michalek R. & Templeton D. Potentiation of substance P evoked amylase secretion by phorbol esters in the rat parotid gland *in vitro*. 35*P*

Ekman R., Ekstrom J., Hakanson R., Sjogren S. & Sundler F. Calcitonin gene-related peptide in rat salivary glands. 36*P*

Jones S.A. & Summerlee A.J.S. Relaxin increases blood pressure and vasopressin levels in anaesthetized rats. 37*P*

Beale Karen J., Duffet J.M., Forsling Mary L. & Peysner K. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. 38*P*

Frankel H.L., Lightman S.L., Poole C.J.M. & Williams T.D.M. Increased sensitivity to the pressor response of AVP in human subjects with high cervical cord transection. 39*P*

Milvae R., Mitchell M.D., Nathanielsz P.W., Pimentel G. & Rosen E.D. The effect of food withdrawal on myometrial electromyographic (EMG) activity and maternal plasma concentrations of 13,14-dihydro-15-keto prostaglandin $F_{2\alpha}$ (PGFM) and oestrone sulphate in the pregnant ewe at 122 to 127 days gestation (d G.A.). 40*P*

Charlton H.M., Fink G., Mayes C.R., McQueen J. & Watts A.G. The effects of hypothalamic grafts on the density of neurophysin II – immuno-reactivity in the brains of hypogonadal mice. 41*P*

Clarke G. & Wright D.M. Role of the sympathetic nervous system in kappa-opioid inhibition of milk ejection in the anaesthetized lactating rat. 42*P*

Robinson Anne D. & Whitaker Elaine M. Pituitary reproductive hormones during the oestrous cycle in Zucker rats. 43*P*

Fink G., Johnson M.S., Minaur N.J., Mitchell R. & Ogier S.A. LHRH-induced $^{45}Ca^{2+}$ influx into rat anterior pituitary tissue can be reduced by activation of protein kinase C. 44*P*

Day B.L., Dick J.P.R., Marsden C.D., Rothwell J.D. & Thompson P.D. Multiple firing of spinal motoneurones produced by single anodal electrical shocks to human motor cortex. 45*P*

Gandevia S.C. & Rothwell J.C. Subthreshold motor commands and the control of human motoneurones. 46*P*

Evans A.L., Harrison Linda M. & Stephens J.A. Task-dependent changes in the cutaneomuscular reflex response in human first dorsal interosseous muscle. 47*P*

Boden P.R. & Hill R.G. Evidence for the cholecystokinin (CCK) fragments CCK-8S, CCK-4 and pentagastrin sharing a common site of action on rat hipocampal CA1 neurones *in vitro*. 48*P*

Hutchings M.E., King A.J. & Moore D.R. The representation of auditory space in the superior colliculus of ferrets raised with abnormal binaural cues during postnatal development. 49*P*

Chowdhury Muhammad, Fillenz Marianne & Stеardo Luca CCK stimulates dopamine synthesis in rat striatum by a cAMP-dependent mechanism. 50*P*

Lacey M.G., Mercuri N.B. & North R.A. Dopamine hyperpolarizes neurones in the rat substantia nigra zona compacta *in vitro* by increasing potassium conductance. 51*P*

Plummer C.J. & Phillipson O.T. Modification of retinal dopamine receptor binding by lesions of the tecto-retinal pathway in the rat. 52P

Greenwood J., Hazell A.S., Lantos P.L., Luthert P.J. & Pratt O.E. Failure of low pH to open the blood–brain barrier of the rat in the presence of an inhibitor of energy-yielding metabolism. 53P

Davson H., Preston J.E., Segal M.B. & Zlokovic B.V. 100% inhibition of cerebrospinal fluid (CSF) secretion by 10 mM $AlCl_3$ in the rabbit. An artifact. 54P

Acklin S.E. & Chiquet M. An extracellular matrix factor mediates rapid outgrowth of identified leach neurones in culture. 55P

Haynes L.W. Regulation of nerve growth factor-dependent growth of peripheral axons in the Japanese quail *in vitro* by α-melanotropin and its derivatives. 56P

Herrling Paul L. & Turski W.A. Modulatory effects of NMDA agonists on cortically evoked EPSPs in cat caudate nucleus are dependent on stimulus frequency. 57P

Lamb T.D. & Matthews H.R. Incorporation of hydrolysis-resistance analogues of GTP into rod photoreceptors isolated from the tiger salamander. 58P

Brunken W.J. & Daw N.W. Effect of indoleamine agonists and antagonists on the response of ganglion cells in the rabbit retina. 59P

Henry G.H., Wong R.O.L. & Wye-Dvorak J. Distribution of neurones in the retinal ganglion cell layer of the Tammar Wallaby. 60P

Beazley L.D. & Dunlop S.A. A retino-retinal projection cannot account for high optic axon numbers during development in the marsupial *Setonix brachyurus*, quokka. 61P

Zeki S. The anatomy and physiology of area V6 of macaque monkey visual cortex. 62P

Foster D.H., Thorson J. & Tomoszek A. Acuity for fine-grain motion is better than two-dot separation hyperacuity in the peripheral field of the dark-adapted human eye. 63P

Foster D.H., Scase M.O. & Taylor S.O. Anomalous loss in blue–green hue discrimination in very brief monochromatic stimuli presented to the normal human eye. 64P

Scholfield C.N. Afferent axons of the guinea-pig olfactory cortex show Ca-mediated tails. 65P

Duch D.S., Levinson S.R., Recio-Pinto E. & Urban B.W. Purified and unpurified sodium channels from eel electroplax bilayers. 66P

Dunne M.J. & Petersen O.H. GTP and ADP activate ATP-inhibited K^+ channels in the insulin-secreting cell line RINm5F. 67P

Ashcroft Frances M., Ashcroft S.J.H., Kfakei M. & Kelly R. ADP modulates the ATP-sensitivity of the K-channel closed by glucose in isolated rat pancreatic B-cells. 68P

Docherty R.J. Gd^{3+} specifically blocks a component of voltage-sensitive Ca current in NG108 15 cell type. 69P

Krieger C. & Sears T.A. The development of voltage-dependent conductances in murine spinal cord neurones in culture. 70P

Neher Erwin Inositol 1,4,5-triphosphate and GTP-S induce calcium transients in isolated rat peritoneal mast cells. 71P

Robertson Brian Some properties of GABA-activated chloride channels in mammalian dorsal root ganglion neurones. 72P

Redhead C.R. pH regulation in isolated rat osteoblasts, its sensitivity to parathormone PTH and insulin. 73P

Baker P.F. & Brown A. Transfer of newly synthetized protein into the giant axon of the squid *Loligo forbesi*. 74P

Kalfakakou V. & Simons T.J.B. The mechanism of zinc uptake into human red blood cells. 75P

Mann G.E. & Norman P.S.R. Trans-stimulation of tracer amino acid efflux from the rat pancreatic epithelium by vascularly injected amino acids. 76P

Bunce K.T. & Spraggs C.F. The effects of omeprazole, an H^+/K^+-ATPase inhibitor, on ion transport in guinea-pig isolated gastric mucosa. 77P

Ahsan M.A., Bleakman D. & Naftalin R.J. Prevention of carbachol-induced fluid secretion in isolated rabbit ileum by dopamine. 78P

Sirinathsinghji D.S.J. Inhibitory influence of corticotrophin releasing factor on sexual behaviour in the male rat. 79P

Baldwin B.A., Kendrick K.M. & Keverene E.B. Intracerebroventricular oxytocin stimulates maternal behaviour in the sheep. 80P

Daniel P.M., Guthrie D.L. & Warley Alice Decrease in lymphocytes in the blood of diabetic rats. 81P

Christie D., Dziegielewska K.M., Le Gros G., Mollgard K., Renwick A.G.C., Reynolds M.L. & Saunders N.R. a_2HS glycoprotein: the human equivalent of the fetal protein fetuin. 82*P*

Reid A.M. & Titchen D.A. Electromyographic activity of the reticulo-omasal orifice in fasted and fed lambs. 83*P*

Buchan W., Kay R.N.B., Sasaki Y. & Scott D. Effects of abrupt changes in food and potassium intake on the rumen sodium reservoir in sheep. 84*P*

Berden J.A., de Haan A., de Haan E.J., van Doorn J.E., Hartog A.F. & Westra H.G. Has IMP a regulatory role during fatiguing contraction? IMP-binding sites on the myosin complex of rat muscle. 85*P*

Ferenczi M.A., Irving M. & Peckham M. Birefringence transients during relaxation of rabbit de-membranated muscle fibres from rigor following laser flash photolysis of caged ATP. 86*P*

Colomo F., Lombardi V. & Piazzesi G. Recovery of tension after step length changes applied to tetanized isolated frog muscle fibres during constant velocity stretches. 87*P*

Lakie M. & Turnidge Janet M. Long and short term human muscle thixotrophy. 88*P*

Edwards R.H.T., Jackson M.J., Nolan G.M. & Wagenmakers A.J.M. A mechanism for the reduced parvalbumin content found in dystrophic muscle. 89*P*

Patmore L. Contractile effects of calcium, sodium and veratridine on embryonic chick heart. 90*P*

Fozzard H.A., Sejersted O.M. & Wasserstrom J.A. Sodium activation of the Na,K-pump in isolated sheep cardiac Purkinje strands. 91*P*

Lipp P. & Pott L. Ca-dependent inactivation of Ca current causes apparent reversal of transient inward current in single cardiac myocytes. 92*P*

Poggioli Josiane & Vassort Guy Accumulation of inositol phosphates in isolated rat heart following α_1-adrenergic, muscarinic and electrical stimulation. 93*P*

Egan T., Noble D., Noble S.J., Powell T. & Twist V.W. Separation of calcium and $[Ca]_i$-activated current in guinea-pig and rabbit ventricular cells. 94*P*

Arlock Per & Wohlfart Bjorn Effect of voltage clamp duration on force production of successive twitches in ferret and guinea-pig papillary muscle. 95*P*

Bucx J.J.J., de Tombe P., Schouten V.J.A. & ter Keurs H.E.D.J. Effect of Sr^{2+} on force and sarcomere length in heart muscle of rat. 96*P*

Desypris G. & Parry D.J. The effect of gender on reinnervation of soleus muscles of dystrophic mice (C57BL/6J dy^{2J}/dy^{2J}). 97*P*

Fyffe R.E.W. The location of Renshaw cell synapses upon cat spinal motoneurones. 98*P*

POSTER COMMUNICATIONS

Hammond P. & Mouat G.S.V. Interocular transfer of motion after-effects in complex cells of feline striate cortex. 99*P*

Shirley D.G., Walter S.J. & Zewde T. Renal function in rats before and after preparation for clearance experiments. 100*P*

Bowser-Riley F., Hill W.A.G. & Smith E.B. The use of strychnine as a model for the design of drugs to combat the action of pressure on mice. 101*P*

Suer A.H. & Wali F.A. Stimulus frequency and post-tetanic potentiation in the detection of rat neuromuscular transmission partially blocked by atracurium. 102*P*

Amobi N.I.B. & Smith I.C.H. Effect of calmodulin antagonist, W-7 on neuromuscular responses of isolated rat vas deferens. 103*P*

Kilbinger H., Racke K. & Schworer H. Cholinergic modulation of the spontaneous release of 5-hydroxytryptamine (5-HT) from the enterochromaffin cells of the *in vitro* vascularly perfused guinea-pig ileum. 104*P*

Wilkinson J. Does the vagus contain nerve fibres that inhibit gastric acid secretion in the rat? 105*P*

Barrow S.E., Cockroft J.R., Hickling N.E. & Ritter J.M. Bradykinin-induced 13,14-dihydro-15-oxo-prostaglandin $F_{2\alpha}$ production in man. 106*P*

Figueroa J.P., Hoffman G.E., McDonald T.J. & Nathanielsz P.W. Arginine vaspressin (AVP) immunoreactive axons in median eminence external zone and pars distalis of fetal sheep: relationship with corticotropin releasing factor (CRF) immunoreactive axons. 107*P*

Benns L.M. & Hanson M.A. Properties of neurones in the rat trigeminal nucleus caudalis responding to stimulation of the ipsilateral parietal meninges. 108*P*

Forsyth Karyn M. & Pollock D. Morphine and clonidine potentiate field stimulation-induced [^{3}H]noradrenaline in the isolated mouse vas deferens. 109*P*

Pryor J.P. & Smith I.C.H. Twitch responses of the isolated human vas deferens. 110*P*

Thomas A.L. & Thompson Sarah J. The effect of propranolol treatment on fetal plasma renin concentration during the last third of gestation on the guinea-pig. 111*P*

Colino Asuncion & Halliwell James Effects of serotonin in rat hippocampus *in vitro*: differential responsiveness of CA_1 neurones along the septo-temporal axis. 112*P*

Falk G. & Shiells R.A. Do horizontal cell responses contribute to the dogfish electroretinogram (ERG)? 113*P*

Cull-Candy S.G., Dilger P., Marshall C.G. & Ogden D.C. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. 114*P*

Ashley R.H., Montgomery R.A.P. & Williams A.J. Incorporation of several calcium channels from sheep and rabbit heart into planar lipid bilayers. 115*P*

Ashford M.L.J., Hales C.N. & Sturgess N.C. Adenosine triphosphate inhibits the activity of the calcium-activated non-selective cation channel in a rat insulinoma cell line. 116*P*

Callahan H., Cottrell G.A., Hather N.Y., Lambert J.J., Nooney J.M. & Peters J.A. Modulation of the $GABA_A$ receptor of bovine chromaffin cells in culture by some progesterone metabolites. 117*P*

Moynihan J.B. Comparison of sodium–lithium countertransport in HK and LK red cells of sheep. 118*P*

Chapman J.C., Hreash F. & Laycock J.F. Absence of cardiovascular effects in the anaesthetized rat. 119*P*

Chapman R.A. & Suleman Issak H. Changes in a^i_{Na} and pH_i in isolated ferret ventricular muscle on repletion of the bathing Ca following a period of Ca-deprivation. 120*P*

Chapman R.A. & Rodrigo G.C. The effects of membrane potential and extracellular potassium on intracellular sodium activity in isolated ferret papillary muscle. 121*P*

Terarar D.A. & Victory J.G.G. Influence of halothane on calcium currents in single cells isolated from guinea-pig ventricular muscle. 122*P*